DOCUMENT RESUME

ED 066 286 RC 006 413

AUTHOR	Oberle, Wayne H.; And Others
TITLE	Proceedings: Rural Sociology Section, Association of Southern Agricultural Workers, 1971 (Jacksonville, Florida, February 1-3, 1971).
SPONS AGENCY	Department of Agriculture, Washington, D.C.
PUB DATE	3 Feb 71
NOTE	376p.; Proceedings of annual meetings of the Association of Southern Agricultural Workers, Jacksonville, Florida, February 1-3, 1971
EDRS PRICE	MF-$0.65 HC-$13.16
DESCRIPTORS	Agriculture; *Community Development; *Cultural Factors; Demography; Ecology; *Population Trends; Racial Factors; *Rural Areas; Rural Development; Rural Youth; Social Change; *Sociology

ABSTRACT

The 28 papers in the proceedings are separated into 7 categories according to the session at which they were presented at the annual meeting. The areas of rural life covered by the papers are youth, rural development in the 1970's, population, social change, race and culture, community and community development, and ecology and environment. (PS)

ED 066286

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

RECEIVED
JUL 12 1971
NMSU
E.R.I.C.

PROCEEDINGS

Rural Sociology Section

ASSOCIATION OF
SOUTHERN
AGRICULTURAL
WORKERS
1971

Annual Meeting, Jacksonville, Florida

February 1-3, 1971

Department of Sociology and Rural Life
Agricultural Experiment Station
Mississippi State University
James H. Anderson, Director

RC 006413

FOREWORD

Copies of papers presented at the Rural Sociology Section of the Association of Southern Agricultural Workers held in Jacksonville, Florida, February 1-3, 1971, are included in this volume. Papers are presented in the order in which they appeared on the program. Abstracts of these papers are published in the official Proceedings of the Association.

The officers of the Rural Sociology Section wish to express their appreciation to the many sociologists who participated in this year's meeting by volunteering papers, chairing sessions, and serving on panels. Each author of a paper provided copies of his paper to the Section Secretary in order to make this volume possible.

Special appreciation is extended the Department of Sociology and Rural Life, Agricultural Experiment Station, Mississippi State University, for compiling, binding, and distributing this Proceedings.

Carlton R. Sollie, Secretary
Rural Sociology Section

Section Officers

	1970-71	1971-72
Chairman	William P. Kuvlesky Texas A&M University	John E. Dunkelberger Auburn University
Vice Chairman	John E. Dunkelberger Auburn University	Carlton R. Sollie Miss. State University
Secretary	Carlton R. Sollie Miss. State University	Maurice R. Voland University of Kentucky
Assistant Secretary	Maurice R. Voland University of Kentucky	Virlyn Boyd Clemson University

CONTENTS

SESSION I. YOUTH. V. A. Boyd, Clemson University, Presiding.

What Is an "Occupational" Choice?
Wayne H. Oberle, Texas A & M University, and Rex R. Campbell
University of Missouri.

A Comparison of Teenage Boys' and Girls' Orientations Toward Marriage and Procreation.
Katheryn Ann Thomas, Texas A&M University.

A Study of High School Students' Beliefs Concerning Their Maturity for Marriage.
James S. Wittman, Jr., Western Kentucky University.

The Vietnam War: A Multivariate Analysis of the Orientations of Louisiana Youth.
J. Steven Picou, Evans W. Curry, and George S. Tracy, Louisiana State University.

SESSION II. RURAL DEVELOPMENT IN THE 1970's. Earl Pettijohn, FES, Washington, Presiding.

Theoretical Framework for Understanding Rural Development.
Paul R. Eberts, Cornell University.

An Action Program in Rural Sociology as Viewed by an Agricultural Extension Rural Sociologist.
D. C. Ruesink, Texas A&M University.

Rural Sociology in the South.
T. Lynn Smith, University of Florida.

SESSION III. POPULATION. Donald ~~Smith~~ South, University of Southern Mississippi, Presiding.

Some Factors Associated with Rural to Urban Migration.
Lawrence W. Drabich, North Carolina State University.

Migration Patterns and Poverty Among Adults of Southern Rural Origins.
Lloyd Bacon, University of Georgia.

White and Nonwhite Population Characteristics of Growing and Declining Cities in the Nonmetropolitan South.
Glenn Fuguitt, University of Wisconsin.

Differentials in Demographic Expectations of Louisiana Rural Youth.
Neil Paterson, Louisiana State University.

Effects of Changes in Land Use, Mechanization, and Other Selected Variables upon Migration from Georgia Farms, 1950-1960.
P. C. Sharma, University of South Alabama, and J. D. Tarver, University of Georgia.

SESSION IV. SOCIAL CHANGE. C. L. Cleland, University of Tennessee, Presiding.

The Relation of the Rural Citizen to Governmental Agencies and Programs.
Paul J. Jehlik, CSRS, USDA.

Personal Anomia and Unequal Opportunity.
Daniel E. Alleger, University of Florida.

A Rural Emergency Medical Services Plan.
Bond L. Bible, American Medical Association.

SESSION V. RACE AND CULTURE. William Boykin, Alcorn A&M College, Presiding.

Unitary School Systems--One Race or Two?
James M. Palmer, Mississippi State University.

Economic Assistance in Manpower Development--Training and Relocation of Mexican Americans.
Michael C. Kleibrink and David C. Ruesink, Texas A&M University.

Southern Parents and Attitudes Toward School Desegregation--1965-1970.
Jon P. Alston and Melvin J. Knapp, University of Georgia.

Some Aspects of Human Ecology as Found in Racism in the South.
George A. Sewell, Alcorn A&M College.

Labor Systems on Thoroughbred Horse Farms--20th Century Vestiges of Feudalism.
Rabel Burge and Maurice E. Voland, University of Kentucky.

Developing Relationships Between Social Scientists in Predominantly White and Predominantly Black Land-Grant Colleges and Universities.
Bardin H. Nelson, Texas A&M University.

SESSION VI. COMMUNITY AND COMMUNITY DEVELOPMENT. Harold L. Nix, University of Georgia, Presiding.

Style of Life and Community Development.
John Belcher, University of Georgia.

Critical Issues in Community Development Research--A Field-Theory Perspective.
Kenneth P. Wilkinson, CSRS, USDA.

Community Reconnaissance Methods--A Synthesis of Functions.
Harold L. Nix and Norma Seerley, University of Georgia.

SESSION VII. ECOLOGY AND ENVIRONMENT. Edward L. MacLean, Clemson University, Presiding.

Leaders' Attitudes and Opinions Toward the Forest and Forest Fires and Their Possible Effect upon Fire Prevention Messages.
Ben E. Dickerson, Stephen F. Austin State University.

The Complexities of Automation as a Factor in Social Change.
Albert H. Roemer, University of South Alabama.

Computer Modeling of the Human Ecosystem.
Victor R. Cain, Oak Ridge National Laboratory.

Small Town Development and Population Redistribution.
Patricia B. Guseman and Edward L. MacLean, Texas A&M University.

WHAT IS AN "OCCUPATIONAL CHOICE"?

Wayne H. Oberle
Department of Sociology
and Anthropology
Texas A&M University

and

Rex R. Campbell
Department of Rural
Sociology
University of Missouri

ABSTRACT

The purpose of this paper is to broaden the conceptual apparatus regarding "occupational choices" of adolescents and thereby make sociological research into this much researched area more productive. Using the prior work of Kuvlesky and Bealer as the touchstone, specific assumptions are enumerated which are associated with an action frame of reference but yet relevant to various dimensions of social interaction, socialization, stratification, and mobility. Such enumeration may provide an analytical framework that shifts the focus from individual choice to individual selection.

What Is an "Occupational Choice"?

The purpose of this paper is to broaden the conceptual apparatus regarding the "occupational choices" of adolescents and thereby make sociological research into this much researched area more productive.

Although status projection researchers have opposed using the concept occupational choice to designate "the total, all-inclusive process culminating in the attainment of a particular occupational status by the individual" (Kuvlesky and Bealer, 1966:266-267), few have gone beyond the contention that such usage is too ambiguous and too inclusive.[1] Two noted exceptions (Kuvlesky and Bealer, 1966:266-267) define occupational choices as only the psychological preferences or desires that the individual has regarding his own work status. This narrower definition acknowledges a point which seems to have been largely ignored:

> The job that one acquires is conditioned not only by the preferences and desires of the person for a particular occupational status (the aspect strongly implied as crucial by the term "choice") but also by many factors over which the individual essentially has little or no control.

The latter point generally suggests the relevance of shifting the focus of status projection research from individual choice to individual selection, specifically; (1) It encourages us to view occupational attainment as a result or function of "the individual's preferences for work statuses and that huge, undifferentiated residual, consisting of all those factors in the person's situation which condition attainment but are not subsumable as preferences" (Kuvlesky and Bealer, 1966:267); (2) It reminds us to focus on nonvolitional, processual, and structural, as well as volitional, aspects of phenomena so important to attainment -- social interaction, socialization, social stratification, and social mobility; and (3) It challenges us to view a particular aspiration or a particular occupational status as a mere synchronic snapshop of dynamically interrelated factors such as values, means, goals, and opportunities.

If the conceptual apparatus regarding status projections is to be broadened to incorporate the above distinctions, then it seems necessary to identify some of the assumptions upon which it is based:[2]

1. "The actor has goals (or aims, or ends); his actions (or behavior) are usually directed toward the pursuit of these."

However, goal attainment does not necessarily involve the attainment of a particular social status (or position) in a given social structure or system: the actor may not be seeking status improvement (Luchterhand and Sydiaha, 1966:22).[3] For example, the actor's goal can be a new experience in a role related to a particular social status which he already holds.

2. Action often involves the selection of specific means for the attainment of specific goals; even where it appears that it does not, it is always possible to distinguish analytically between means and goals (ends).

It is easiest to distinguish between means and goals when there are many ways to achieve the goals -- when the goal (e.g., obtaining some type of "White-collar" occupation) is diffuse rather than specific (e.g., becoming a vocational agriculture instructor in a particular community).

3. "An actor always has many goals; his actions in pursuit of any one effect and are affected by his actions in pursuit of others."

This does not mean that an actor's goals are consistent and non-conflicting.

The next four assumptions identify factors influencing an actor's set of goals and perceptual preparation, if any, for obtaining them through social interaction:

4. The actor makes certain assumptions about the nature of his goals and the possibility and/or probability of their attainment.
5. "Action is influenced not only by the situation but by the actor's knowledge of it."
6. The actor has certain sentiments, emotions, or affective dispositions which affect both his perception of situations and his choice of goals.
7. The actor has values which influence his selection of goals and his ranking or ordering of them in some scheme of priorities (or hierarchy).[4]

The last three assumptions concern the important relationship between choice, strategies of action, and role performance:

8. "The pursuit of goals and the selection of means always occurs within situations which influence the course of action."

Some social situations allow less freedom than others for the actor to implement one or more strategies of action for the benefit of one or more audiences present: social situations involve social control (constraint) and audience performance as well as individual selection from alternatives.

9. "Where there is choice, there is a greater possibility of, and need for, a strategy of action; where there is little choice, either because of the structure of society or because of the limits of technical possibility, then strategies of action are less relevant."
10. "Individuals appear and act out for the benefit of an audience, and pretend or imagine themselves to be certain kinds of persons; the audience as well as other actors accept the make-believe as a reality (Znaniecki, 1965:202)."

However, acceptance of the make-believe as a reality as one point in time -- during the interaction -- does not mean that the audience and/or the other actors will extend such acceptance.

The above assumptions constitute an analytical framework which helps identify subjective as well as objective elements in social situations: elements such as the actor's motives, ideas (cognitive sets), feelings, and knowledge (Cohen, 1968:74) in addition to more manifest elements such as statuses, roles, abilities, and skills.[5] But the challenge goes beyond the identification of such elements: the desires or preferences -- "aspirations" -- of an actor that are goal objects directed toward the attainment of a particular social (e.g., occupational) status may be only partially integrated into his (1) orientation toward (2) rank and/or (3) participation in personality, primary group, voluntary association, bureaucratic, community and societal systems.[6] The challenge also invites the expansion of the framework to incorporate intended and unintended influences upon such integration exerted by the behavior and commentaries of socialization agents such as parents, teachers, and glamour objects (whether directed to the adolescent himself, other adolescents, infants, children and/or adults).[7]

Such expansion, in turn, must begin with an explicit answer to the question "What is socialization?" (Clausen, 1968:3):

> "Most simply, the study of socialization focuses upon the development of the individual as a social being and participant in society.... As a process, socialization entails a continuing interaction between the individual and those who seek to influence him (socialization agents), an interaction that undergoes many phases and changes."

Viewed differently, the function of socialization is human transformation -- the transformation of human raw material of society into "good working members" (Brim, 1966:5). The rationale for shifting the focus of status projection research to individual selection and away from individual choice is at least partially supported by the assertion that such transformation included social control as well as learning (Clausen, 1968:6):

> "The concept of socialization embraces equally the efforts of society's formally designated socialization agents (parents, teachers, elders, preachers) to transmit and secure adherence to existing norms and the mutual efforts of participants in all sorts of relationships (peer group, courtship, marriage, work group) to establish stable expectations."

Thus, the above list of elements in social situations must be expanded to include (intrinsic and extrinsic) rewards and sanctions. The relationship of socialization to social stratification and to social mobility can be expressed in terms of organizational or individual-level mechanisms which intervene between cultural elements such as norms, rewards, and sanctions on the one hand and the outcomes of socialization (e.g., status improvement, audience impression) on the other (Brim, 1966:12): "(1) (a) capacity to present clear norms; (b) capacity to provide performance opportunities; and (c) capacity to selectively reward performance; and (2) (a) capacity to learn the norms; (b) capacity to perform; and (c) motivation to perform."

The next section of the paper discusses minimal distinctions involving what until now has been regarded as key concepts in the conceptual apparatus concerning status projections of adolescents. A status orientation is (Juarez, 1968:9) "a mental concept that directs or channels a person's energies toward a social object having status significance" and has three major components -- (Juarez, 1968:9) "(1) a person [an actor] or persons; (2) orientations; and (3) social objects (statuses)."

We disagree with the statement that the first component is "self-explanatory" (Juarez, 1968:9). That is, we agree with the assertion that each of the components are variable.[8] The idea of variability allows for the situation in which a person's status orientations may (1) be incongruent with each other or (2) vary from one person's perspective to that of another either at one point in time or over time.[9]

We suggest that the second component, orientations, which consists of two major types -- aspirations and expectations -- is too narrow. Juarez (1968:11), following Kuvlesky and Bealer (1966), defined an aspiration as "the mental process of a person or persons which serves as channeling of energies toward a status goal" and an expectation as "the probable attainment in reference to a particular status area." He mentioned the objects respectively referred to by the concepts: (1) aspirations refer to statuses or goals that are desired while (2) expectations refer to anticipated status or goal attainment. Thus, the terms status and goal apparently are used interchangeably. As mentioned earlier, a status is not necessarily only a goal in and of itself -- it can be viewed as a means to the attainment of another goal. Furthermore, a person can have an orientation toward a social object that is a relationship between one or more means and one or more goals as well as have an orientation toward a goal, thereby reflecting social situations in which there is substantial choice and/or strategies of role performance.

The third component of status orientations -- social objects -- is viewed as variable in both the earlier and later versions of the status orientation scheme. Juarez (1968:10), for example, stated that social objects "vary in kind and in level." What remains unclear, however, is the nature and inclusiveness of the referent of the social objects component. Education, income, occupation and residence have been mentioned as examples of status or goal areas. Kuvlesky and Bealer stated that "the notion of [occupational] aspiration designates what job a person wishes [or wants] to acquire" (1966:269) and that:

> "An aspiration usually refers to a person's, or grouping of persons' orientation toward a goal. In this sense, aspiration is a special form of the concept 'attitude', which is commonly defined as a predisposition to behave towards a social object. The distinction between the two concepts is that the object involved in an aspiration is a goal and therefore is more or less desired by individuals; whereas an attitude may be positively or negatively directed" (1966:273).

Given the relevancy of the distinction between an aspiration and an attitude, we suggest that "wanting" a social object is only one of several ways a person or persons may orient their thinking, feeling, or behavior toward it. In other words, the conceptual apparatus is not inclusive enough to facilitate reference to social objects which refer to means-end relationships.

Such narrowness of scope is unfortunately linked to the inadequate conceptualization of values and their empirical indicators (Dunsavage and Kleibrink, 1970:1; Parsons and Shils, 1954:390; and Rodman, 1963;206). Although values have been variously defined by various writers, "... there is general agreement that values: (1) are abstract concepts inferred from behavior, (2) operate to influence a selection of the available means and ends of action, and (3) have either favorable or unfavorable connotations for the well-being of the individual or group" (Wilkening, 1954:39). Furthermore, "values are operationally defined by verbal choices" (Schwarzweller, 1959:247). If a value is defined as "a standard which influences the selection of (1) ends or goals of action, (2) means used in attempting to reach those ends or goals, and (3) modes or styles of action" (Brown, 1965:67), then perhaps the ability of status projection researchers to focus on means-ends relationships may be enhanced more by (a) a new concept with a more explicit referent than by (b) an additional referent to an existing concept.

The balance of the paper attempts to implement the analytical framework outlined above by introducing a new concept whose referent, if not name, may have utility for status projection researchers who are attempting to identify non aspirational-expectational aspects of phenomena so important to attainment. The concept will be introduced by distinguishing its referent from that of an aspiration and of an expectation.

The object to which an expectation refers is (Kuvlesky and Bealer, 1966:273) an estimation of the probability of attainment of a goal or goal-area. In comparison, the object to which an acquisitional or facilitating valuation refers is to an estimation of the probability of attainment of a goal or goal-area, given the use of one or more specific means. The larger point is that both concepts refer to objects which may not be *personally* wanted or desired.

The concept aspiration has been broken down into three analytical elements (Kuvlesky and Bealer, 1966:270): "(1) a person or persons, (2) wanting (having an orientation toward or about), (3) a social object (i.e., a *goal*)." In comparison, the concept acquisitional or facilitating valuation has the following analytical elements: (1) a person or persons, (2) estimating the relevance of, (3) a person or persons, (4) using (or adopting) or selecting one or more specific means to attain one or more given goals (ends). We contend that valuations, like aspirations and expectations, are types of orientations toward a social object; the former refers to the relationship between one or more means and one or more goals, and the latter refers to a goal. Thus, the referent of the concept acquisitional or facilitating valuation is more inclusive than that of the concept aspiration. More specifically, the former refers to one's estimation of the probability of one or more means facilitating the attainment of one or more specific goals *for oneself or for others*. The latter refers to one's estimation of the probability of one or more person's attaining a specific goal. (end)

The analytical relevance of the concept acquisitional valuation is that it facilitates focus upon orientational situations pervaded by incongruency between one's aspirations and expectations on the one hand and his values or opportunities on the other. Examples include social situations in which an individual has (absolutely or relatively) high occupational aspirations and expectations but (1) does not view educational attainment as a relevant and/or unlikely means to his occupational mobility and/or (2) has not internalized that valuation for his own behavior. Thus, the concept helps depict or portray the degree of integration of orientational, rank, and participation of actors in personality, primary group, voluntary association, bureaucratic, community and societal systems. For example, an individual may desire a number of goals at the same time but may not perceive them as being directly interrelated: "... his goal-specifications may or may not be logically consistent" (Kuvlesky and Bealer, 1966:270). Thus, perceiving a specific goal or a specific means-end relationship is one thing: Internalizing or integrating the perception in accordance with it is another.

SUMMARY

In brief, if future research into the already much researched area of status projections of adolescents is to be made more productive, then it seems necessary to explicitly identify a modified action frame of reference which, in turn, helps shift the focus from individual choice to individual selection. The specific assumptions related to such an enumeration of reference seems to make several contributions toward more fruitful conceptivalization: (1) it begins to make explicit the referents of specific concepts; (2) permits a conceptual base which can be the target of revision as empirical findings are reported and interrelated; and (3) facilitates explicit reference to an analytical perspective which can be continually revised to more accurately depict the various dimensions of phenomena referred to by the concepts social interaction, socialization, social stratification and social mobility.

The paper is but a crude attempt to invite others to begin identifying those "undifferentiated residual" factors influencing status projections specifically and the development of human resources generally.

FOOTNOTES

1 For the intended purpose of clarity, this paper makes a necessarily continuous and explicity reference to the conceptual scheme which is introduced in Kuvlesky and Bealer (1966), and is supplemented in Kuvlesky and Bealer (1967), Bealer and Kuvlesky (1968), and Kuvlesky (1969).

2 The first nine assumptions were originally listed and discussed in Cohen, 1968:69-70.

3 Following Brim and Wheeler (1966:25), an actor requires three things before he is able to perform a role satisfactorily: (1) knowledge of what is expected of him; (2) the ability to meet the role requirements; (3) the desire or motivation to practice the behavior and pursue the appropriate ends -- knowledge, ability, and motivation.

4 Some goals have priority over others for three main reasons (Cohen, 1968: 71): (1) Some goals are more highly valued than others; (2) The attainment of some goals is a necessary means to the attainment of others; and (3) The pursuit of some goals may not be feasible in certain circumstances, or the cost of pursuing them may be so high as to jeopardize the quality of the achievement or the possibility of pursuing many others.

5 See Luchterhand and Sydiaha (1966:126) who mention that agencies and individuals help or care for various clientele as an end in itself -- the aid is not given in anticipation of receiving an extrinsic reward.

6 The relevance of a model which includes most of these types of systems was discussed by Paul R. Eberts, Associate Professor of Rural Sociology, Cornell University, at a lecture presented January 25, 1971 at Texas A&M University, College Station, Texas, on "Economic and Political Variables in a Theory of Social Change."

7 For an empirical examination of the role models of Negro youth in East Texas, see "Occupational Role Models of Negro Youth," paper to be presented by Wayne H. Oberle and William P. Kuvlesky at the Texas Academy of Science meetings, Nacogdoches, Texas, March 11-13, 1971.

8 Kuvlesky and Bealer (1966:270) state that the "person element" may also vary.

9 The situations listed do not by any means exhaust the possibilities.

REFERENCES

Bealer, Robert C. and William P. Kuvlesky
1968 "On Occupational Aspirations and Job Attainments: A Reply." Rural Sociology, 33 (September): 353-356.

Brim, Orville G.,Jr. and Stanton Wheeler
1966 Socialization after childhood: Two Essays. New York: John Wiley and Sons, Inc.

Brown, Marjorie
1965 "Professional Values." Journal of Extension, 3 (Summer): 67-74.

Brown, Minnie and C. Paul March
1965 "Extension and Poverty" Journal of Extension 3 (Fall): 157-164.

Burchinal, Lee G.
1962 Career Choices of Rural Youth in a Changing Society. Minneapolis: Minnesota Agricultural Experiment Station. North Central Regional Publication 142.

Campbell, Rex R.
1966 "A Suggested Paradigm of the Individual Adoption Process." Rural Sociology, 31 (December): 458-466.

Clausen, John A. (Ed.)
1968 Socialization and Society. Boston: Little, Brown and Company.

Cohen, Albert K. and Jarold M. Hodges, Jr.
1963 "Characteristics of the Lower-Blue-Collar-Class." Social Problems. 10 (Spring): 303-334.

Cosby, Arthur
1969 "The Disadvantaged Student, Goal-Blockage, and the Occupational Aspirations of Southern Youth." Paper prepared for Rural Sociology Section of Association of Southern Agricultural Workers Meeting at Mobile, Alabama.

Cowhig, James et al.
1960 Orientation Toward Occupation and Residence. East Lansing: Michigan Agricultural Experiment Station, Special Bulletin 428.

Darvas, Nicholas
1965 The Anatomy of Success. Indianapolis: The Bobbs-Merrill Co.

Dunsavage, Evelyn and Michael Kleibrink
1970 "The Relationship of Aspirations and Expectations to Values." Paper presented at the annual meeting of the Association of Southern Agricultural Workers, Houston.

Edlefsen, John B. and Martin Jay Crowe
1960 Teenagers' Occupational Aspirations. Pullman: Washington Agricultural Experiment Station, Bulletim 618.

Ginzberg, Eli
1951 Occupational Choice: An Approach to General Theory. New York: Columbia University Press.

Ginzberg, Eli
1966 The Development of Human Resources. New York: McGraw-Hill Book Company.

Goffman, Erving
1959 Presentation of Self in Everyday Life. Garden City, New York: Doubleday and Company, Inc.

Haller, A.O.
1957 "The Influence of Planning to Enter Farming on Plans to Attend College." Rural Sociology 22 (June): 137-142.

Haller, Archibald P. and Irwin W. Miller

1963 The Occupational Aspiration Scale: Theory, Structure, and Correlates. East Lansing: Michigan Agricultural Experiment Station, Michigan State University, Technical Bulletin 288.

Harrington, Michael

1963 The Other America: Poverty in the United States. Baltimore: Penguin Books.

Hyman, Herbert H.

1953 "The Value Systems of Different Classes: A Social Psychological Contribution to the Analysis of Stratification" Pp. 426-442 in Reinhard Bendix and Seymour M. Lipset (eds.), Class, Status, and Power: A Reader In Social Stratification, Glencoe: The Free Press.

Juarez, R. Z.

1968 "Educational Status Orientations of Mexican-Americans and Anglo-American Youth in Selected Low-Income Counties of Texas." College Station: Texas A&M University, unpublished Master's thesis.

Kaldor, Donald R., Eber Eldridge, Lee G. Burchinal, and I.W. Arthur

1962 Occupational Plans of Iowa Farm Boys. Ames: Iowa Agricultural and Home Economic Experiment Station, Research Bulletin 508.

Daufman, Harold F., Kenneth P. Wilkinson and Luch W. Cole

1966 Poverty Programs and Social Mobility: Focus on Rural Populations of Lower Social Rank in Mississippi and the South. State College: Mississippi State University Social Science Research Center, Preliminary Report 13.

Kuvlesky, William P. and Robert C. Bealer

1966 "A Clarification of the Concept 'Occupational Choice'." Rural Sociology 31(September): 265-276.

Kuvlesky, William P. and Robert C. Bealer

1967 "The Relevance of Adolescents' Occupational Aspirations for Subsequent Job Attainment." Rural Sociology 32 (September): 290-301.

Kuvlesky, William P. and Nelson L. Jacob

1968 Educational Status Projections of Rural Youth: Annotations of the Research Literature. College Station, Texas: Texas Agricultural Experiment Station, Department of Agricultural Economics and Sociology, Departmental Technical Report No. 3.

Kuvlesky, William P.

1969a "A Synthetic Overview of Research on Rural Youth's Projections for Occupational and Educational Attainment: A Progress Report." Paper presented to the Research Committee on Educational and Occupational Behavior at the annual meeting of the Rural Sociological Society, San Francisco.

Kuvlesky, William P.

1969b "Generalizations About the Relationship of Occupational Aspirations to Subsequent Attainment." Rural Sociology 34 (March): 95-96.

Luchterhand, Elmer and Daniel Sydiaha

1966 Choice in Human Affairs: An Application to Aging-Accident-Illness Problems. New Haven, Conn.: College and University Press Services.

Parsons, Talcott and Edward Shils, et al.
1951 The Social System, Toronto, Ontario: Collier-MacMillan Canada, Ltd.
Parsons, Talcott and Edward Shils, et.al.
1954 Toward A General Theory of Action. Massachusetts: Harvard University Press.
Porter, R. J.
1954 "Predicting Vocational Plans of High School Senior Boys." Personnel and Guidance Journal 33 (December): 215-218.
Rodman, Hyman
1963 "The Lower-Class Value Stretch." Social Forces 42 (December): 205-215.
Rosen, Bernard C.
1956 "The Achievement Syndrome: A Psycho-cultural Dimension of Social Stratification." American Sociological Review 24 (April): 203-211.
Rosenberg, Morris
1957 Occupations and Values. Glencoe, Illinois: The Free Press.
Schwarzweller, Harry K.
1959 "Value Orientations and Occupational Choices." Rural Sociology, 24 (September): 246-256.
Schwarzweller, Harry K.
1960 "Values and Occupational Choice." Social Forces 42 (December): 126-135.
Slocum, Walter L.
1956 Occupational and Educational Plans of High School Seniors from Farm and Nonfarm Homes. Pullman: Washington Agricultural Experiment Station, Bulletin 564.
Stephenson, Richard M,
1957 "Realism of Vocational Choice: A Critique and an Example." Personnel and Guidance Journal, 35 (April): 482-488.
Straus, Murray A.
1956 "Personal Characteristics and Functional Needs in the Choice of Farming as an Occupation." Rural Sociology 21 (September-December): 257-266.
Wilkening, Eugene A.
1954 "Techniques of Assessing Farm Family Values." Rural Sociology, 19 (March): 35-47.
Youmans, E. Grant
1959 "Factors in Educational Attainment." Rural Sociology 24 (March): 21-28.
Znaniecki, Florian.
1965 Social Relations and Social Roles: The Unfinished Systematic Sociology. San Francisco: Chandler Publishing Company, 1965.

A COMPARISON OF TEENAGE BOYS'' AND GIRLS'' ORIENTATIONS TOWARDS MARRIAGE AND PROCREATION

Katheryn Ann Thomas
Texas A&M University

INTRODUCTION

Youth's projections towards marriage and families of procreation have received little attention in sociological research. This has been true despite the import of marital-family statuses and roles in the lives of almost all adults, male and female. Boys' orientations towards these statuses and roles have especially been neglected. Yet, at least one study has shown that marriage and raising a family is one of boys', as well as girls', greatest concerns about the future (Garrison, 1966). Projections in regard to marital-family statuses and roles may constitute a salient element in boys' and girls' "frames of aspirational reference" (i.e., the set of goals an individual holds as a guide to future-oriented behavior).

In considering the implications of youth's orientations, it is especially important that the orientations of both the sexes be analyzed. A peculiar characteristic of marital-family orientation is that, for the most part, their actualization is dependent upon agreement between persons of opposite sex of acquiescence of one sex to the desires of the other. Different orientations of two marital partners may explain the discrepancy between actual and desired or anticipated behavior of one of them. Furthermore, the resulting disappointment or frustration felt by the partner unable to realize his desires may have unfavorable implications for his psychological well-being and may have social repercussions, such as conflict in the marital relationship.

The objective of this study is to investigate the marital-family orientations of both boys and girls and to ascertain the manner in which boys and girls may differ, if at all, in these orientations. The study focuses on: (1) desired age of marriage, (2) number of children desired and expected, (3) desire and expectation of boys and girls for their wife or themself, respectively, to work outside the home after marriage and after children, and (4) the rank of importance these youth accord desire for marriage and a family of procreation relative to other goals.

All of the projections to be investigated in this study may be significant elements in youth's frame of aspirational reference and, thus, critical to the understanding of status-attainment processes. Evidence of general sex differences in regard to at least three of these orientations, fertility projections and desires and expectations for the wife or mother in the family of procreation to work outside of the home, would suggest the probability that the aspirations of one partner will not be realized.

CONCEPTUAL FRAMEWORK

This study incorporates the conceptual distinction between aspirations and expectations (Kuvlesky, 1966). Youth's aspirations, desires, or wants in regard to marriage and procreation may differ significantly from what they actually anticipate. It has not been determined whether aspirations or expectations are more prominent in a youth's frame of reference. It is likely that both influence actual behavior. Rank of importance of marital-family goals has significance as a measure of the salience of such goals in youth's frame of aspirational reference, thereby suggesting the extent to which these goals may be given priority over others.

RELEVANT PAST RESEARCH

Because of the dearth of research in this area, extant data offers little basis for predicting sex differences or similarities in many marital-family orientations. Theoretically, however, these is reason to expect boys and girls to differ in regard to most of the projections to be investigated in this study.

One may expect girls to desire to marry earlier than boys, because of the differential salience other adult statuses, particularly career, will have in the lives of men and women. A career is often as important to a boy's future as marriage and a family of procreation. Therefore, it is likely that a boy will be preoccupied with attaining an occupational identity before engaging in a marital relationship. Findings of previous studies substantiate this argument. It was found in a national survey (Franklin and Remmers, 1960) and in two studies in the South (Drabick, 1965; Garrison, 1966) that high school girls desired and expected to marry at an earlier age than their male peers.

In regard to fertility projections and orientations towards employment of females outside the home, girls may have more reason to forsake traditional norms than boys. However, for Negro and white youth, the reasons may be quite different, especially in regard to fertility desires. The Negro female has had to carry the burden of the large family considerably more than the male in Negro society. Rejecting the idea of large families and pursuing high-level career goals may be part of the process of dissociating herself from her former oppressive status (Antonvsky, 1967). On the other hand, the Negro male may still hold to the idea of "machismo" (Liebow, 1967), i.e., that ability to produce a large family demonstrates proof of masculinity. In contrast to Negroes, white girls face the dilemma created by ambiguous and inconsistent cultural expectations (Douvan and Adelson, 1966). The American educational process has encouraged the development of their talents and skills. Yet to utilize such talents and skills, the girls must give up, to some extent, the traditional role associated with being a wife and mother. This may mean smaller families and employment outside of the home.

No studies were found which investigated sex differences in regard to Negroes fertility aspirations. However, a study of high school sophomores in South Carolina revealed that Negro males expected significantly more children than Negro females (Knapp and Boyd, 1970). On the other hand, extant evidence indicates little difference between number of children desired and expected by white boys and girls. Between two and four children appears to be the norm internalized by most white youth regardless of sex (Garrison, 1966).

No study was found in which either Negro or white boys and girls were questioned directly regarding their projections for their spouse or themself, respectively, to work outside the home after marriage and/or after children. A Georgia study reports that 88 percent of the boys surveyed stated "housewife" as the desired occupation for their wife (Garrison, 1966). In contrast, research repeatedly demonstrates that girls seldom indicate housewife or homemaker as their preferred occupation (Flanagan, *et al*., 1964; Slocum and Empey, 1957; Stratton, 1957). Yet these studies did not investigate the conditions under which the girls intended to pursue their desired occupations. That is, whether or not they looked forward to a career after marriage and/or after children. In some studies, large proportions of the girls sampled have evinced a desire to combine homemaker and career roles (Slocum and Empey, 1957; Turner, 1964; Kosa, *et al*., 1967).

In regard to the relative importance of marital-family goals, boys' preoccupation with attaining an occupational identity suggests that they would not give marital and family goals priority over occupational and educational goals during late adolescence. Conversely, it is at this age that one would expect females to begin to orient themselves toward their future mate and family. There appears to have been no previous investigation of sex differences in this regard. Slocum reports that marriage and the future role of homemaker were more attractive to a sample of female high school seniors than a career. The majority of the girls believed that women's most important duty to society is to marry and have a family (Slocum and empey, 1957).

METHODS

The data utilized in this study were collected in 1968 from high school seniors and their age peers who were either high school dropouts or academically retarded.[1] The youth had resided in economically depressed counties of rural East Texas[2] two years previously, and the great majority were still residing in these counties at the time of the 1968 interviews. Because ethnicity and marital status are likely to be factors influencing marital-family orientations, Mexican-American and married boys and girls were excluded from the sample.

Although the social background of the males and females of the sample were similar, there were significant differences between the Negro and white youth. Generally, the Negroes came from families of lower socio-economic status, their parents had less education, their mother was more likely to have been employed outside the home, and their families tended to be larger. Because of these differences as well as the fact that the marital-family orientations of the Negro and white girls in the sample were found to differ significantly in 1966 (Kuvlesky and Obordo, 1969), race was controlled throughout the analysis.

In regard to the low-income nature of the sample area, it should be noted that preferred, as well as actual, age of marriage and size of family have been found to vary inversely and positively, respectively, by socio-economic status (Westhof, et al., 1961; Drabick, 1965; Gustavus, et al., 1969; Franklin and Remmers, 1961). In addition, persons of rural residence tend to marry earlier and to have larger families than persons residing in urban areas (Moss, 1965; Larsen and Rogers, 1964). Furthermore, evidence also suggests that rural residents in the South have larger family ideals (Freedman and Sharp, 1954).

---

[1] The research reported in this study was conducted as the second follow-up in a panel study of youths' status projections. The respondents were originally contacted in 1966.

[2] The 1960 U. S. Census reports the median family incomes in the counties ranged from $1,737 to $2,451 and classifies the counties as 100 percent rural.

The majority of the youth were administered questionnaires in school in a group setting. Most of the remainder were given a personal interview and the few who could not be questioned in either manner were mailed questionnaires. Data were not available from the youth who had to be contacted by mailout questionnaires about their orientation toward the female spouses working outside the home. Most of these youth were high school dropouts, a factor which may have influenced these projections.

FINDINGS

Desired Age of Marriage

Desired age of marriage was obtained from an open-ended question which requested the respondent to state the age at which he or she would "like to get married." Regardless of race, girls expressed a desire to marry earlier than boys, Figures 1 and 2. But the differences between the white boys and girls were not as marked as the differences between the Negroes. Both white boys and girls preferred to marry in their early twenties, as did Negro girls. However, 25 was a conspicuously popular age with the Negro boys.

Number of Children Desired and Expected

To obtain fertility projections, the respondents were asked how many children they wanted and how many they expected to have. Structured alternative responses ranged from "none" to "8 or more."

The responses of the boys and girls, regardless of race, were similar in that the overwhelming majority of both sexes expressed desires and expectations for two to four children. The mean number desired and expected was approximately three (Tables 1 and 2). However, white boys exhibited more of a preference for only two children than white girls. On the other hand, a substantially greater proportion of white girls than white boys expressed a desire for four children.

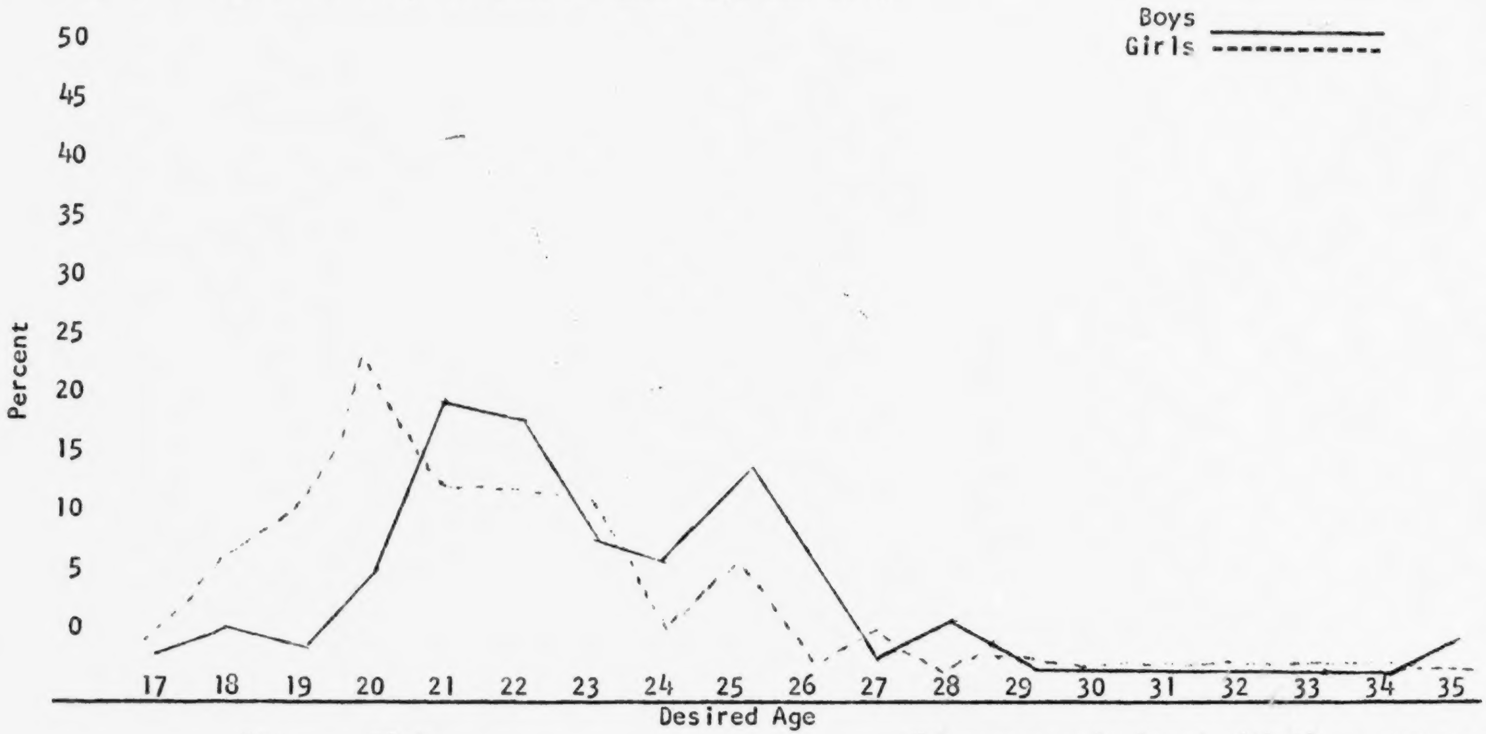
The fertility expectations of the white boys were also smaller than those of the white girls, but the differences between the sexes were not great enough to be deemed statistically significant. Negro boys and girls did not differ significantly in either their aspirations or expectations regarding the size of their future families of procreation.

Desires and Expectations Regarding Work of Wife or Self Outside the Home

Girls and boys were requested to choose one of the following alternatives in answer to questions regarding their desires and expectations for themself or their spouse, respectively, to work outside the home:

1. Not work outside the home at all
2. Work part-time until I (we) have a child

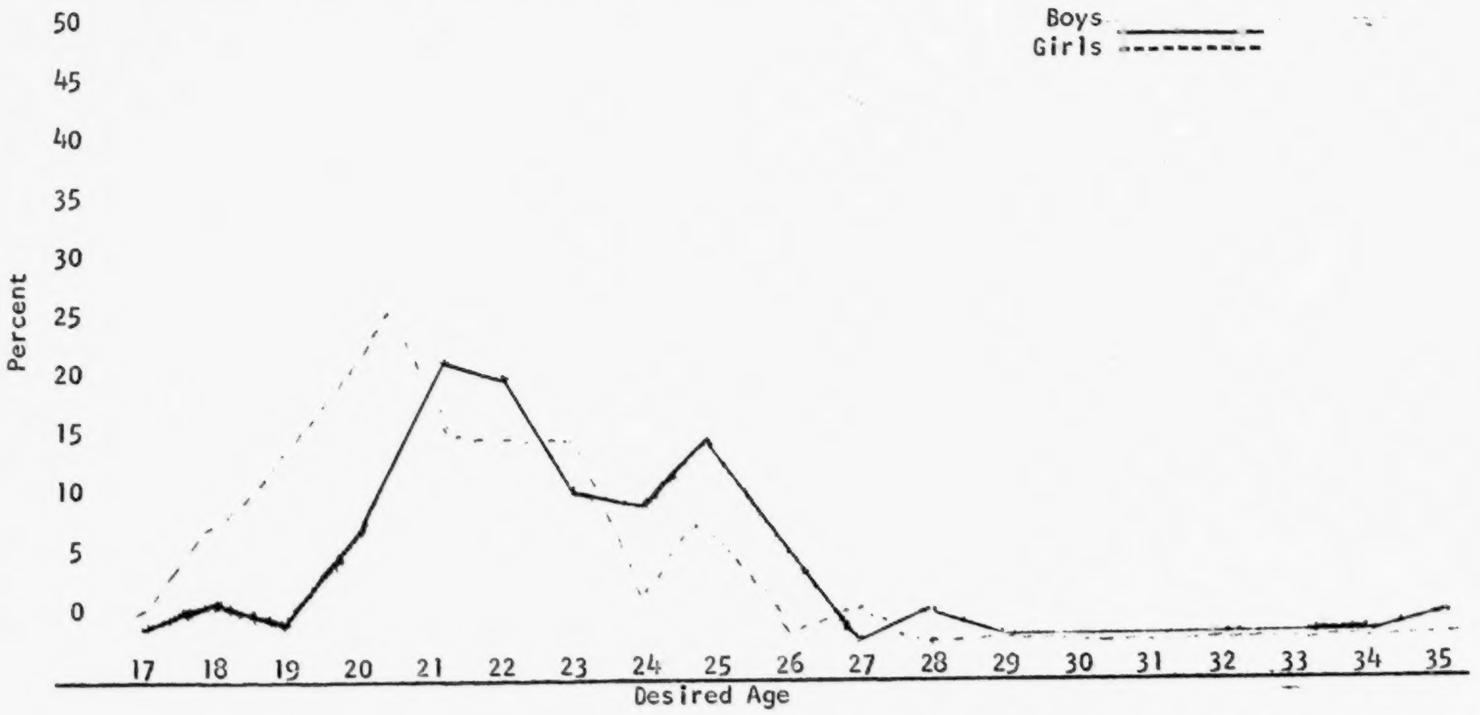
Figure 1. Age of Marriage Desired by White Boys and Girls



	Boys	Girls
Mean	23.16	21.22
Median	22	21

Chi square calculated with the responses grouped into 4 categories--20 or less, 21-22, 23-24, and 25 or more--were significant at the .001 level of probability.

Figure 2. Age of Marriage Desired by Negro Boys and Girls



	Boys	Girls
Mean	24.68	22.26
Median	25	22

Chi square calculated with the responses grouped into 4 categories--20 or less, 21-22, 23-24, and 25 or more--were significant at the .001 level of probability.

Table 1. Number of Children Desired by White and Negro Boys and Girls.

Number of Children	Whites		Negroes	
	Boys (N=104)	Girls (N=88)	Boys (N=79)	Girls (N=77)
	---------Percent---------			
0	1	3	0	1
1	2	0	3	4
2	41	28	34	43
3	36	31	20	17
4	17	30	33	30
5 or more	3	9	10	5
Total	100	100	100	100
No information	0	0	5	0
Mean	2.75	3.15	3.19	2.90
Median	2	3	3	3

*Whites: $x^2 = 8.96$ df = 3 $.02 < P < .05$
*Negroes: $x^2 = 2.77$ df = 3 $.30 < P < .50$
*Categories 0 - 2 were combined in calculation of chi square.

Table 2. Number of Children Expected by White and Negro Boys and Girls.

Number of Children	Whites		Negroes	
	Boys (N=99)	Girls (N=87)	Boys (N=76)	Girls (N=76
	---------Percent---------			
0	2	1	0	3
1	4	1	3	5
2	42	30	28	38
3	27	35	25	17
4	19	23	33	22
5 or more	6	10	11	15
Total	100	100	100	100
No information	5	1	8	1
Mean	2.79	3.14	3.39	3.04
Median	3	3	3	3

*Whites: $x^2 = 4.84$ df = 3 $.05 < P < .10$
*Negroes: $x^2 = 5.33$ df = 3 $.05 < P < .10$
*Categories 0 - 2 were combined in calculation of chi square.

3. Work full-time until I (we) have a child
4. Work part-time even after I (we) have children
5. Work full-time even after I (we) have children

For both Negro and white youth, desires of boys were less favorable towards their wife working than desires of girls were to work after marriage (Table 3). Differences were especially marked between white boys and girls. Over half of the boys did not want their wife to work at all. Most of the remainder preferred that their wife work only part-time until a child arrived. In contrast, a large majority of the white girls desired to work until they had a child; most, full-time. White boys and girls were similar in that neither desired their spouse or themself, respectively, to work outside the home after children. While Negro boys were more inclined toward their wife working after marriage than white boys, they restricted their preferences to before the arrival of children in the family. In contrast, a substantial proportion of Negro girls desired to work even after children--although primarily only part-time.

With the exception of the Negro girls, slightly more of the boys and girls expected than desired their wife or themself, respectively, to work outside the home after marriage (Table 4). But the same trends appeared in expectations as aspirations. However, the differences between the expectations of the Negro boys and girls were less and not statistically significant.

Importance of Marital-Family Goals

To elicit relative importance of marital-family goals, the youth were asked to rank their desire "to get married and raise a family" and six other goals--occupational, educational, leisure-time, money, place of residence, and material possessions--by the order of importance these goals were to them. To simplify analysis of the results, the responses were grouped into three categories: high (rank of 1 and 2); moderate (rank of 3 to 5); low (rank of 6 and 7).

There was little difference in the ranking of marital-family goals by white boys and girls (Table 5). The central tendency was to rank them moderately. White girls were more likely than white boys to rank family goals high; however, general sex differences between the white youth were not statistically significant. An interesting result is that the ranking of marital-family goals by white youth was quite variable, regardless of sex. A substantial proportion of the white girls, like the boys ranked the goals low.

The distributions of both Negro boys and girls are skewed towards the low ranks of 6 and 7. This was especially true for the boys. The central tendency for the Negro girls was to rank the goals moderately; for the boys, slightly lower. Negro boys and girls were similar in that few of either ranked family goals high.

Summary of Findings

The youth in every grouping were similar in that:

1. With the exception of the Negro boys, they tended [illegible] want to marry in their early twenties;

Table 3. Boys' and Girls' Desire for Spouse or Self, respectively, to Work Outside the Home after Marriage.

Conditions for Working	White		Negroes	
	Boys (N=97)	Girls (N=83)	Boys (N=77)	Girls (N=72)
	Percent			
Not at all	54	17	26	11
Part-time until child	29	14	36	20
Full-time until child	13	59	23	26
Part-time after child	4	4	11	28
Full-time after child	0	6	4	15
Total	100	100	100	100
No information	7	5	7	5

*Whites: $x^2 = 49.64$ df = 4 $P < .001$

Negroes: $x^2 = 19.40$ df = 4 $P < .001$

*The last two categories were combined in calculation of chi square.

Table 4. Boys' and Girls' Expectation for Spouse of Self, respectively, to Work Outside the Home after Marriage.

Conditions for Working	Whites		Negroes	
	Boys (N=96)	Girls (N=83)	Boys (N=76)	Girls (N=69)
	Percent			
Not at all	40	11	19	22
Part-time until child	37	19	42	24
Full-time until child	15	42	17	16
Part-time after child	8	19	18	25
Full-time after child	0	9	4	13
Total	100	100	100	100
No information	8	5	8	8

Whites $x^2 = 43.54$ df = 4 $P < .001$

Negroes $x^2 = 7.76$ df = 4 $.10 \; P < .20$

Table 5. Rank of Importance Accorded Marital-Family Goals by White and Negro Boys and Girls.

Rank	Whites		Negroes	
	Boys (N=97)	Girls (N=78)	Boys (N=78)	Girls (N=73)
High (1-2)	28	41	5	14
Moderate (3-5)	45	30	24	38
Low (6-7)	27	29	71	48
Total	100	100	100	100
No information	7	10	6	4
Mean	3.9	3.6	5.6	4.9
Median	4	3	6	5

Whites: $x^2 = 4.36$ df = 2 .10 $P < .20$

Negroes: $x^2 = 8.58$ df = 2 .01 $P < .02$

Table 6. Summary of Sex Differences.

Orientation	Significant at .05 Level		Nature of Differences	
	White	Negro	White	Negro
Desired Age of Marriage	Yes	Yes	G > B	G > B
Number of Children Desired	Yes	No	G > B	
Number of Children Expected	No	No		
Desire re Employment of Spouse/Self	Yes	Yes	G > B	G > B
Expectation re Employment of Spouse/Self	Yes	No	G > B	
Rank Importance of Marital-Family Goals	No	Yes		G > B

2. They desired and expected from 2 to 4 children, mean numbers desired and expected approximated 3;
3. With the exception of the Negro girls, very few of the boys and girls evinced a desire for themselves or their spouse, respectively, to work outside the home after having a child;
4. With the exception of the Negro boys, the central tendency was to rank desire to marry and raise a family moderately relative to the other goals.

However, there were significant differences between the sexes in some of the orientations, as shown in Table 6.

1. Girls desired to marry earlier than boys, regardless of race. The differences were especially marked between Negro boys and girls.
2. White boys were more likely to desire 2 children, whereas white girls were more inclined towards 3or4.
3. Regardless of race, desires of girls were more favorable towards working outside the home after marriage than desires of white boys towards their wife working. Differences between the aspirations and expectations of the white boys and girls occurred in regard to working until children arrived. Differences between the Negro youth were more conspicuous regarding work after children.
4. Marital-family goals appeared of less importance to Negro boys than to Negro girls.

As is evident from Table 6 and the preceding discussion, race was a significant factor affecting sec differences in almost all of the orientations. Although it is not the focus of this study, interesting racial differences per se are also apparent. Negro boys and girls desired to marry later and ranked marital-family goals lower than their white counterparts; Negro girls desired and expected fewer children than white girls, whereas the converse was found for the boys; proportionately more Negro than white girls desired to work outside the home after children.

IMPLICATIONS OF THE FINDINGS

Despite the desires of most of the youth to marry within several years and the fact that almost all of the youth desired and expected children at some point in their lives, these goals did not appear particularly salient in either boys' or girls' frames of aspirational reference. Therefore, the behavior of the youth appears less likely to be oriented towards the attainment of these goals as it is towards the achievement of others, such as occupational and educational goals.

This is understandable for boys, because of the import preparing for and establishing a career has at this time in their lives. Perhaps the later age of marriage desired by Negro boys reflects an especial preoccupation with and perceived need for commitment solely to educational and career goals. The desire to marry later may also account for the markedly low rank of importance marital-family goals held for these youth. The persistence of this lack of concern over time would, perhaps, reflect the historical lack of responsibility Negro males have assumed in the Negro family.

For girls, at least the whites, the lack of salience of marital-family goals points to the incongruence between girls' socialization and society's actual expectations regarding their adult statuses and roles. For the most part, the girls appear cognizant of and willing to ascribe to society's prescriptions in this respect. But they appear absorbed in the immediate future. As Douvan and Adelson (1966) propose, "They displace their energy from the central issue of marriage to more immediate but secondary interests." Even in late adolescence, only a few years before they desire to marry, they appear to pursue egoistic goals, such as a career--goals that may be irrelevant to their eventual status attainment. The immediate concern of Negro girls with other goals is more understandable, if such goals enable them to cope with present and perhaps anticipated economic hardship.

Girls' aspirations and expectations for children and their orientations toward work suggest they do ascribe to the societal prescription that the status of motherhood takes precedence over the egoistic status, career. However, most neither desired nor anticipated giving the status of wife such lofty treatment, despite the desires of the boys. Most desired and planned to combine marital and career roles at least until children arrived.

These orientations appear, therefore, a potential source of marital conflict and, if the girls are not allowed to achieve their goals, a source of disappointment and frustration. If girls do achieve their desires, we may predict greater participation of rural, white women in the Southern labor force. This may lead to possible improvement of the economic status of the white Southern rural families and, perhaps, change in the traditional allocation of roles in these families. Conversely, if the Negro girls acquiesce to the desires of the Negro boys, there may be less participation of rural Negro females in the Southern labor force and perhaps fewer matriarchal, rural Negro families.

Observed sex differences in regard to fertility desires and expectations may not be great enough to result in marital conflict. All of the youth, regardless of sex, were oriented toward small families. Projected family size was small in the sense that it is not as likely to be as much of an economic burden as the typically large low-income families, especially Negro families, in the rural South. It's interesting that youth's projected families of procreation were much smaller than their families of orientation, especially in the Negroes'. This suggests that the Negro female is, indeed, in the process of dissociating herself from her former oppressive status. Furthermore, the Negro male no longer appears to be influenced by the idea of machismo. These orientations towards smaller families also have favorable implications in regard to the population crisis. Nevertheless, the large proportion of youth (the majority of every race-sex grouping) desiring over two children suggests the problem of over-population is far from being solved.

The study of marital-family orientations has particular significance, because it relates, as just suggested, to some of the most critical of national and world problems: the crisis of over-population, participation of women in the labor market and its implications for the future of the American family, and the interminable, plaguing problem of poverty. With improved contraceptive techniques, higher education of women, and lessening demands for women to remain solely in the home, motivation and normative orientations will play an increasingly significant part in determining behavior relating to these problems. Normative orientations regarding marriage, family size, and the allocation of statuses and roles in the family appear to be internalized by late childhood or early adolescence (Gustavus, et al., 1969). The nature of the normative orientations of today's youth and their implications for societal change is certainly worthy of additional sociological study.

Racial differences in marital-family orientations, which were briefly eluded to in this paper, suggest another fruitful area of analysis. The study of ethnic differentials, which has been especially neglected in past research, promises to also be informative. Of course, there are many factors which past research and common sense suggest are related to marital-family orientations. Knowledge of the nature and extent of their relationship, the process of development of these orientations and their relationship to actual status attainment, factors prohibiting their attainment, and the consequences of failure to realize these goals are all significant problems for future research.

REFERENCES

Antonovsky, A.
1967 "Aspirations, class and racial-ethnic membership." The Journal of Negro Education 36 (Fall):385-393.

Douvan, Elizabeth and Joseph Adelson
1966 The Adolescent Experience. New York: John Wiley.

Drabick, Lawrence W.
1965 Marriage Plan and Migration Intent: Factors Associated with Expectations. Raleigh: North Carolina State University, Department of Agricultural Economics and Rural Sociology, Educational Series No. 5.

Flanagan, John C., Frederick B. Davis, John T. Dailey, Marion F. Shaycrott, David B. Orr, Isadore Goldberg, and Clinton A. Newman,Jr.
1964 The American High-School Student. Pittsburgh: University of Pittsburgh, Project TALENT.

Franklin, R. D., and H. H. Remmers
1961 "Youth's attitudes toward courtship and marriage." The Purdue Opinion Panel. Lafayette: Purdue University, Division of Educational Reference, Report of Poll No. 62.

Freedman, Ronald and Harry Sharp
1954 "Correlates of values about family size in the Detroit metropolitan area." Population Studies 8 (July):35-45.

Garrison, Karl C.
1966 "A study of the aspirations and concerns of ninth-grade pupils from the public schools of Georgia." The Journal of Social Psychology 69 (August):245-252.

Gustavus, Susan O and Kent G. Mommsen
1969 "Negro-white differentials in the formation of ideal family size among young people." Revision of a paper read at the annual meeting of the Southern Sociological Society, New Orleans.

Knapp, Melvin, and V. A. Boyd
1970 "Family size preferences among black-white adolescents in the South." Paper presented at the annual meeting of the National Council on Family Relations.

Kosa, John, Leo D. Rachiele, and Cyril O. Schommer
1962 "Marriage, career, and religiousness among Catholic college girls." Marriage and Family Living 24 (November):376-380

Kuvlesky, William P. and Angelita S. Obordo
1969 "A racial comparison of teenage girls' projections for marriage and procreation." Revision of a paper presented at the annual meeting of the Southern Sociological Society, New Orleans.

Larsen, Olaf F., and Everett M. Rogers
1964 "Rural society in transition: The American setting," in James H. Copp (ed.), Our Changing Rural Society. Ames: Iowa State University Press.

Liebow, Elliot
1967 Talley's Corner. Boston: Little, Brown.

Moss, J. Joel
1965 "Teenage marriages: cross-national trends and sociological factors in the decision of when to marry." Journal of Marriage and the Family 27 (May):230-242.

Slocum, Walter L., and L. T. Empy
1957 "Occupational planning by highschool and college girls." Journal of Home Economics 49 (February):125-126.

Stratton, Dorothy C.
1957 "Interpretation of the findings of the National Study of Adolescent Girls." Journal of the National Association of Women Deans and Counselors 21 (October):18-20.

Turner, Ralph H.
1964 "Some aspects of women's ambitions." The American Journal of Sociology 70 (November):271-285.

Westoff, Charles F., Robert G. Potter, Jr., Philip C. Sagi, and Elliot G. Mishler
1961 Family Growth in Metropolitan America. Princeton: Princeton University Press.

A STUDY OF HIGH SCHOOL STUDENTS' BELIEFS CONCERNING THEIR MATURITY FOR MARRIAGE

James S. Wittman, Jr.*
Western Kentucky University

Marriage is usually considered as a state that requires mature partners. In this study of high school students, we were interested in what students thought of themselves in respect to their emotional, social, educational, and financial maturity for marriage. Our general belief was that a large number would indicate they think of themselves as mature for marriage in all four areas since the age at first marriage has been decreasing and marriage seems to be a dominant goal for young American males and females. However, it seemed appropriate that one's family background might have an influence on one's ideas concerning his maturity for marriage. Therefore, Hollingshead's two-factor index for determining one's class was used to test this factor along with the residence of the family as to rural or urban location.

Purpose Of The Study

It was hypothesize that more of the upper class students would consider themselves immature for marriage and that more of the lower class students would think of themselves as mature for marriage while the middle class students would fall in between. The second hypothesis was that rural students would tend to think of themselves more mature for marriage than the urban students. The third hypothesis was that females would tend to think of themselves as more mature for marriage than would the males. Finally, the four areas of maturity used; emotional, educational, social, and financial were not expected to show much variation within a given class category or by school location (rural or urban).

Technique Used

A questionnaire was administered to all the students in attendance by the home room teachers in both schools. The students circled and then punched their responses on port-a-punch IBM cards. The urban school consisted of approximately 1500 students and the rural school approximately 800 students. All the students of the urban school resided within the city limits of a 40,000 incorporated city in western Kentucky. The marjority of the students in the rural school resided outside of incorporated towns in central Kentucky and were transported to school by bus. To aid the student in identifying the occupation of the head of the house, a

---

Acknowledgements. Credit for initiating, developing, and administering the questionnaire goes to Mrs. Georgia Sublet, a high school counselor; Mr. Chester Redmon and Mr. Thomas Florence, the high school principals. Credit should be given to the Computer Center at Western Kentucky University for providing its services without cost and to the faculties and students of both schools for their participation.

*Professor of Sociology, Department of Sociology and Anthropology.

mimeographed listing as used by Hollingshead[1] was provided. This resulted in classifying each home in one of seven categories for occupation which was multiplied by a weight factor of 7. The students also checked one of seven categories for the education of the head of the house. This education factor was multiplied by a weighted factor of 4. The sum of these two above weighted factors produces the index of social position (class) for each student's family. The range of scores used for social classes were the same as suggested by Hollingshead:

Social Class	Range of Scores
I	11-17
II	18-27
III	28-43
IV	44-60
V	61-77

The distribution of Classes was as follows:

	Urban				Rural			
	Females		Males		Females		Males	
	No	%	No	%	No	%	No	%
Class I	73	10	89	13	4	1	7	2
Class II	140	19	169	24	12	3	23	6
Class III	198	27	181	26	68	20	84	21
Class IV	203	28	180	26	151	43	187	46
Class V	106	15	67	10	113	32	102	25
No Info.	3	1	4	1	1	--	--	--
Total	723	100	690	100	349	99	403	100

A Brief Description of the Sample

It would appear that these students were about what would be expected of American high school students: (1) 97% were between the ages of 14 and 18 years with a few more females than males in the city school and the reverse in the rural school; (2) in both schools 9th graders were in their 14th year, 10th graders in their 15th year, 11th graders in their 16th year, and 12th graders in their 17th year with the Rural students being slightly older for each grade; (3) that 30% of the students are in the 9th grade, 25% in the 10th grade, 23% in the 11th grade, and 22% in the 12th grade with no significant difference between the two schools except among the 10th grade females where 30% of the urban as compared to 24% of the rural are in this grade, (the data does not provide sufficient information to give a factual explanation for this difference); and (4) the sex ratio in the total sample is almost 1 to 1 since there are 1,093 males and 1,072 females.

---

[1] Hollingshead, August B. Two Factor Index of Social Position. Yale Station, New Haven, Conn. 1965. pages 2-7.

Findings

Class I, Females (Table 1a, page 4).

The urban females in this class consisted of 10% of the urban high school females while it consisted of only 1% of the rural high school females.

In general, most of the female high school students in this class in both the rural and urban school did not feel they were mature for marriage. The urban females believed for the most part that they were emotionally, socially, educationally, and financially immature for marriage but about one in ten was not certain and about one in five believed they were mature for marriage. The rural females also tended to indicate they were not mature for marriage but 25% (1 female) felt she was socially and educationally mature.

Class I, Males (Table 1b, page 4).

The urban males in this class consisted of 13% of the urban high school males while it consisted of only 2% of the rural high school males.

In general, over half of the male students in this class did not feel they were mature for marriage. The urban males felt for the most part that they were emotionally, socially, educationally, and financially immature for marriage. However, about one in five indicated they were mature emotionally, socially, and educationally for marriage and an equal number indicated uncertainty in these areas but only one in ten felt they were financially mature and another one in ten indicated uncertainty about their financial maturity. The rural males also tended to indicate they were not mature for marriage in all areas except 29% (2 males) who indicated they were emotionally, socially, and educationally mature but immature financially for marriage.

Class II, Females (Table 2a, page 5).

The second highest class had 19% of the urban and 3% of the rural female high school students in it.

In general, more of the urban female students felt they were immature for marriage than did the rural females in this second highest class. More of the females felt they were socially and educationally mature for marriage than felt they were emotionally and financially mature for marriage.

The majority of the urban female students in this class did not believe they were mature for marriage but this was most evident in respect to financial maturity (89%) and only 5% felt they were financially mature and 6% were not certain. One in four indicated they were emotionally, socially, and educationally mature for marriage.

Half of the rural female students felt they were emotionally, socially, and financially immature for marriage but only one in three felt immature educationally. Half of these female students felt they were educationally

TABLE 1a A PERCENTAGE COMPARISON OF THE STUDENTS FROM CLASS I* FAMILIES IN AN URBAN AND A RURAL HIGH SCHOOL IN KENTUCKY AND THEIR BELIEFS FOR MATURITY FOR MARRIAGE, MAY, 1969.

SEX	FEMALE							
School Location	URBAN (N=73, 10% of total)				RURAL (N=4, 1%)			
Areas of Maturity	Emotion -al	Social	Educa- tional	Finan -cial	Emotion -al	Social	Educa- tional	Finan -cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	18	37	26	14	--	25	25	--
Immature	66	50	64	80	100	75	75	100
Don't know	15	10	10	6	--	--	--	--
No Infor -mation	1	3	--	--	--	--	--	--
TOTAL	100	100	100	100	100	100	100	100

TABLE 1b

SEX	MALE							
School Location	URBAN (N=89, 13%)				RURAL (N=7, 2%)			
Areas of Maturity	Emotion -al	Social	Educa- tional	Finan -cial	Emotion -al	Social	Educa- tional	Finan -cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	18	28	22	6	29	29	29	--
Immature	60	51	61	83	57	43	58	57
Don't know	20	19	14	9	14	14	14	29
No Infor -mation	2	1	3	2	--	14	--	14
TOTAL	100	99	100	100	100	100	101	100

---

*Based upon Hollingshead's 2 Factor Index using Occupation and Education of the Head of the house, I being highest.

TABLE 2a A PERCENTAGE COMPARISON OF THE STUDENTS FROM CLASS II* FAMILIES IN AN URBAN AND A RURAL HIGH SCHOOL IN KENTUCKY AND THEIR BELIEFS FOR MATURITY FOR MARRIAGE, MAY, 1969.

SEX	FEMALE							
School Location	URBAN (N=140, 19%)				RURAL (N=12, 3%)			
Areas of Maturity	Emotion -al	Social	Educa- tional	Finan -cial	Emotion -al	Social	Educa- tional	Finan -cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	19	27	26	5	17	33	50	8
Immature	63	55	64	89	50	50	33	58
Don't know	17	18	10	6	33	17	17	33
No Infor -mation	1	--	--	--	--	--	--	--
TOTAL	100	100	100	100	100	100	100	99

TABLE 2b

SEX	MALE							
School Location	URBAN (N=169, 24%)				RURAL (N=23, 6%)			
Areas of Maturity	Emotion -al	Social	Educa- tional	Finan -cial	Emotion -al	Social	Educa- tional	Finan -cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	21	35	32	10	35	26	48	22
Immature	54	45	55	73	35	48	44	61
Don't know	23	18	12	15	30	26	9	17
No Infor -mation	2	1	1	2	--	--	--	--
TOTAL	100	99	100	100	100	100	101	100

* Based upon Hollingshead's 2 Factor Index using Occupation and Education of the Head of the house, I being highest.

mature for marriage but only 8% felt they were financially mature, while one in three felt they were socially mature and one in six felt they were emotionally mature for marriage. One in three was uncertain about their emotional and financial maturity and one in six were uncertain about their social and educational maturity for marriage.

Class II, Males (Table 2b, page 5).

The second highest class category had 24% of the urban male students and 6% of the rural male students in it.

In general, more of the urban male students indicated immaturity for marriage than did the rural male student in this class.

The majority of the urban male students in Class II indicated their immaturity for marriage, especially financially (73%) but a third felt they were socially and educationally mature for marriage. The rural males in Class II tended to be less certain about this maturity for marriage; for example, about a third felt they were mature, another third felt they were immature, and another third didn't know if they were mature or immature emotionally for marriage. However, almost half (48%) felt they were educationally mature and 44% felt they were educationally immature for marriage. Socially, about half (48%) felt they were immature but one in four were uncertain and an equal number felt they were mature for marriage in this area. Financially, 6 of 10 felt they were immature for marriage.

Class III, Females (Table 3a, page 7).

The middle class consisted of 27% of the urban and 20% of the rural female students.

It would appear from these students' beliefs that twice as many (50%) rural females felt more educationally mature for marriage than did the urban females (26%) but both indicated they are not as financially mature for marriage as they are socially and emotionally.

For the urban females; 51% felt emotionally immature, 45% socially immature, 61% educationally immature, and 82% financially immature for marriage. While for the rural females 49% felt emotionally immature, 41% felt socially immature, 28% felt educationally immature, and 73% felt financially immature for marriage.

Twice as many of the urban female students felt educationally immature for marriage than did the rural female students.

However, eight of ten urban and seven of ten of the rural female students felt they were financially immature for marriage.

TABLE 3a A PERCENTAGE COMPARISON OF THE STUDENTS FROM CLASS III* FAMILIES IN AN URBAN AND A RURAL HIGH SCHOOL IN KENTUCKY AND THEIR BELIEFS FOR MATURITY FOR MARRIAGE, MAY, 1969.

SEX	FEMALE							
School Location	URBAN (N=198,27%)				RURAL (N=68,20%)			
Areas of Maturity	Emotional	Social	Educational	Financial	Emotional	Social	Educational	Financial
BELIEFS	%	%	%	%	%	%	%	%
Mature	26	30	26	8	28	35	50	15
Immature	51	45	61	82	49	41	28	73
Don't know	22	25	13	10	22	24	22	12
No Information	1	--	--	--	1	--	--	--
TOTAL	100	100	100	100	100	100	100	100

TABLE 3b

SEX	MALE							
School Location	URBAN (N=181,26%)				RURAL (N=84,21%)			
Areas of Maturity	Emotional	Social	Educational	Financial	Emotional	Social	Educational	Financial
BELIEFS	%	%	%	%	%	%	%	%
Mature	26	35	30	15	20	29	49	14
Immature	45	40	50	71	42	35	33	65
Don't know	26	24	18	14	35	36	17	21
No Information	3	2	2	--	3	--	1	--
TOTAL	100	101	100	100	100	100	100	100

---

* Based upon Hollingshead's 2 Factor Index using Occupation and Education of the Head of the house, I being highest.

Class III, Males (Table 3b, page 7).

This middle class of male students consisted of 26% of the urban and 21% of the rural male students.

The urban males in Class III had 45% indicating emotional immaturity, 40% social immaturity, 50% educational immaturity, and 71% financial immaturity for marriage. For their rural counter parts 42% indicated emotional immaturity, 35% social immaturity, 33% educational immaturity and 65% financial immaturity for marriage. Fewer of the males in this Class III grouping indicated immaturity for marriage than did the males in Classes I and II.

About half (49%) of the rural males as compared to about a third (30%) of the urban males indicated they were educationally mature for marriage. However, this class also had a large percentage of males who "don't know" if they were mature or immature for marriage.

Class IV, Females (Table 4a, page 9).

The females from the Class IV families consisted of 28% of the urban female students while it consisted of 43% of the rural female students.

It would appear that more of the rural females in Class IV believe they were mature for marriage socially and educationally than their urban counter parts. However, about the same percentage in both schools believed they were immature for marriage financially (73% urban, 72% rural).

Approximately four of ten of the urban females in this class category felt they were emotionally, socially, and educationally immature for marriage while seven of ten felt they were financially immature for marriage.

The rural females in this class category indicated that about three of ten believed they were emotionally, socially, and educationally immature for marriage and seven of ten said they were financially immature for marriage.

Thirty-four percent of the urban female students in this class category as compared to 50% of the rural female students believed they were educationally mature for marriage. However, only 8% of the urban females and 12% of the rural females believed they were financially mature for marriage.

Class IV, Males (Table 4b, page 9).

The males from the Class IV families consisted of 26% of the urban male students and 46% of the rural male students.

TABLE 4a A PERCENTAGE COMPARISON OF THE STUDENTS FROM CLASS IV * FAMILIES IN AN URBAN AND A RURAL HIGH SCHOOL IN KENTUCKY AND THEIR BELIEFS FOR MATURITY FOR MARRIAGE, MAY, 1969.

SEX	FEMALE							
School Location	URBAN (N=203,28%)				RURAL (N=151,43%)			
Areas of Maturity	Emotion-al	Social	Educa-tional	Finan-cial	Emotion-al	Social	Educa-tional	Finan-cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	32	38	34	8	33	46	50	12
Immature	37	37	44	73	38	30	33	72
Don't know	30	25	21	18	27	23	17	15
No Infor-mation	1	--	1	1	1	--	--	--
TOTAL	100	100	100	100	99	99	100	99

TABLE 4b

SEX	MALE							
School Location	URBAN (N=180,26%)				RURAL (N=187,46%)			
Areas of Maturity	Emotion-al	Social	Educa-tional	Finan-cial	Emotion-al	Social	Educa-tional	Finan-cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	35	38	37	12	31	42	46	16
Immature	37	39	47	69	37	30	33	62
Don't know	27	23	16	18	32	28	20	21
No Infor-mation	1	--	--	1	--	--	1	1
TOTAL	100	100	100	100	100	100	100	100

* Based upon Hollingshead's 2 Factor Index using Occupation and Education of the Head of the house, I being highest.

In general, more of the rural Class IV males indicated their maturity for marriage than did the urban Class IV males (46% of the rural males as compared to 37% of the urban males felt educationally mature for marriage, 42% of the rural males as compared to 38% of the urban males felt socially mature for marriage, and 16% of the rural males as compared to 12% of the urban males felt financially mature for marriage). About one in three of the rural males felt emotional, social, and educational immaturity for marriage while three of five felt financially immature for marriage.

In both the rural and urban schools, almost one in four of the males expressed uncertainity concerning their maturity or immaturity for marriage in all four areas.

Class V, Females (Table 5a, page 11).

This lowest class category consisted of 15% of the urban female students and 32% of the rural female students.

Approximately one out of three of the females in both the rural and urban schools felt they were emotionally, socially, and educationally mature for marriage. However, about six out of ten of these same females felt they were financially immature for marriage.

About 3-4 out of 10 of these females from families in the lowest class category in both the urban and rural school felt they were emotionally, socially, and financially mature for marriage. Only 11% of the urban and 12% of the rural female students in this class felt they were financially mature for marriage.

Approximately one-third of these female students in both schools expressed uncertainity in respect to their maturity for marriage in all four areas, emotional, social, educational, and financial.

Class V, Males (Table 5b, page 11).

This lowest class category consisted of 10% of the urban male students and 25% of the rural male students.

In general, the males in Class V expressed the greatest degree of uncertainity in respect to their maturity for marriage. 40% of the male students in each school said they didn't know if they were or were not emotionally mature for marriage. 37% of the urban and 35% of the rural males were not sure of their social maturity for marriage. 37% of the urban and 27% of the rural males were uncertain about their educational maturity for marriage. 36% of the urban and 28% of the rural males were uncertain about their financial maturity for marriage.

A larger percentage (64%) of the rural males said they were financially immature for marriage than did the urban males (43%). More of the rural males (45%) felt they were educationally mature for marriage than did the urban males (31%). Both urban and rural males had 35% who felt they were socially mature for marriage. 32% of the urban males as compared to 25% of the rural males felt they were emotionally mature for marriage.

TABLE 5a A PERCENTAGE COMPARISON OF THE STUDENTS FROM CLASS V * FAMILIES IN AN URBAN AND A RURAL HIGH SCHOOL IN KENTUCKY AND THEIR BELIEFS FOR MATURITY FOR MARRIAGE, MAY, 1969.

SEX	FEMALE							
School Location	URBAN (N=106,15%)				RURAL (N=113,32%)			
Areas of Maturity	Emotion -al	Social	Educa-tional	Finan -cial	Emotion -al	Social	Educa-tional	Finan -cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	30	38	38	11	30	35	41	12
Immature	35	30	38	56	34	35	35	60
Don't know	32	32	24	32	33	29	23	27
No Infor -mation	3	--	--	1	3	1	1	1
TOTAL	100	100	100	100	100	100	100	100

TABLE 5b

SEX	MALE							
School Location	URBAN (N=67, 10%)				RURAL (N=102,25%)			
Areas of Maturity	Emotion -al	Social	Educa-tional	Finan -cial	Emotion -al	Social	Educa-tional	Finan -cial
BELIEFS	%	%	%	%	%	%	%	%
Mature	32	35	31	21	25	35	45	7
Immature	26	21	32	43	32	29	28	64
Don't know	40	37	37	36	40	35	27	28
No Infor -mation	2	8	--	--	3	1	--	1
TOTAL	100	101	100	100	100	100	100	100

* Based upon Hollingshead's 2 Factor Index using Occupation and Education of the Head of the house, I being highest.

Summary

1. The males and females in Class I (highest social position) in both the rural and urban school tended to indicate their immaturity for marriage in all four areas; emotional, social, educational, and financial. (Table 1a & 1b, page 4).

2. The males and females in Class II in both the rural and urban school tended to indicate their immaturity for marriage in all four areas but more so in the financial area. (Table 2a & 2b, page 5).

3. The males and females in Class III differed by school location in respect to their beliefs for maturity for marriage. More of the urban males and females felt immature for marriage than did the rural males and females (Table 3a & 3b, page 7).

4. The males and females in Class IV differed by school location in respect to their beliefs for maturity for marriage. More of the urban males and females felt immature for marriage than did their rural counter parts. Almost half of the rural students felt socially and educationally mature for marriage while about one in three urban students felt this way but almost seven in ten of all the students from Class IV families indicated financial immaturity for marriage. (Table 4a & 4b, page 9).

5. The females in Class V almost split equally in their beliefs concerning their maturity for marriage; 1/3 mature, 1/3 immature, and 1/3 uncertain in respect to emotional, social, and educational maturity. However, 56% of the urban and 60% of the rural Class V female students indicated financial immaturity for marriage. (Table 5a, page 11).

6. The males in Class V expressed more uncertainity about their maturity for marriage in both schools than did the females. However, 43% of the urban and 64% of the rural males felt they were financially immature for marriage but on the other hand 31% of the urban and 45% of the rural males expressed educational maturity for marriage. (Table 5b, page 11).

Conclusion

In reference to this sample of 2, 165 high school students in Kentucky during May, 1969, the following conclusions appear to be reasonable in respect to the stated hypothesis.

First Hypothesis. The majority of the students (males and females) (rural and urban) in both the upper classes (I and II) tend to think of themselves as immature for marriage.

The students in the two lower classes (IV and V) had the largest percent who felt they were mature for marriage but also the largest percent who were uncertain.

The students from the middle class (III) families indicated immaturity for marriage but not as many as the two upper classes but more than the two lower classes.

The data tends to support the first hypothesis.

Second Hypothesis. Rural students tended to have more students believe they were mature for marriage than did the urban students in each class with two exceptions: (1) the rural females in Class I indicated the largest percent who were immature and (2) the urban males in Class V had the largest percent who were uncertain concerning this maturity for marriage. The data tends to support the hypothesis with the two exceptions noted.

Third Hypothesis. The data in this study does not give a clean-cut support of the hypothesis that female students believe they are more mature for marriage than do male students. (see Table 3b, urban male, page 7, Table 4b, urban male, page 9, and Table 5b, urban male, page 11).

Fourth Hypothesis. A general assumption in respect to the areas of maturity was that when a student believed he was mature or immature for marriage, he would indicate the same degree of maturity in all four areas and therefore there would be little or slight variation between the areas of maturity. However, the data does not support this hypothesis.

For most of the students, the outstanding area of belief for immaturity for marriage was fianancial. This financial immaturity ranged from 83% of the Class I urban males to 43% of the Class V urban males.

The upper classes indicated a larger percentage educationally immature than did the lower classes.

The rural students tended to have a larger percent in each class who believed they were educationally mature for marriage than did the urban students.

More of the students believed they were more socially mature than emotionally mature for marriage.

The greatest amount of doubt tended to occur in the area of emotional maturity for all classes from a low of 15% in the upper class to a high of 40% in the lowest class.

It appears from the above data that the home (class position of the family) does have a bearing on the beliefs of these Kentucky high school students in reference to their emotional, social, educational, and financial maturity for marriage.

THE VIETNAM WAR: A MULTIVARIATE ANALYSIS OF THE ORIENTATIONS OF LOUISIANA YOUTH*

J. Steven Picou Evans W. Curry

George S. Tracy

Louisiana State University

*Paper presented at the annual meeting of the Association of Southern Agricultural Workers, Rural Sociology Section, Jacksonville, Florida, February, 1971. This study was made possible, in part, by resources provided by U.S.D.A. Regional Project S-61 and Regional Medical Project 111-56-7601. The authors acknowledge the assistance of Alvin L. Bertrand, Neil Paterson, Tom McCarty, James W. Lemke and Kenneth L. Koonce.

THE VIETNAM WAR: A MULTIVARIATE ANALYSIS OF THE ORIENTATIONS OF LOUISIANA YOUTH

Introduction

The decade of the sixties has witnessed increased student activism in American society. In contrast to earlier "silent generations" contemporary youth have become increasingly concerned and vocal about America's political policies and social problems. The general topic of student activism has received a great deal of attention from social scientists since the Berkeley Free Speech Movement. Accordingly, scientific investigations have generally focussed on student activists on college campus. Little or no research has been conducted on the political orientations of junior and senior high school youth. This fact has provided the major impetus for this study.

Student Activism and the Vietnam War

Student opposition against the protracted Vietnam War steadily increased in intensity and scope during the last decade. The violent reactions on some college campuses following the military action initiated by the United States in Cambodia during the spring of 1970 was the high point of student demonstrations against the war in Southeast Asia. Student opposition to the draft and the Vietnam conflict has been an important component in the recent political involvement of youth. Furthermore, feelings of opposition to the Vietnam War and perception of college student activism can be viewed as important factors in the "political socialization" of future student activists.

The Research Problem and Review of Literature

The primary objective of this study is an analysis of the nature and scope of Louisiana youth opposition to the Vietnam War. Consistent research findings have been noted on the social characteristics of college age youth who are active members of the "student movement". The importance of parental political socialization has been noted by Keniston (1968), Westby and Braungart (1966), Soloman and Fisher (1966) and Jansen *et al*. (1968) for both left and right wing student activists. Current empirical findings indicate that parental political socialization and not rebellion is the important factor for the political orientations of youth.

Concerning the socio-economic status of student activists, Block et al. (1968: 214) have found that left wing student activists are drawn mainly from "the economically, educationally and socially privileged strata of American society." Westby and Braugart, (1966, 1970) have provided evidence which indicates that conservative activists generally come from working class homes and families in the upper class that have right-wing political orientations.

Derber and Flacks (1967) and most recently Dunlap (1970) have noted that as the role of the radical activist becomes an acceptable life style, the scope of war-opposition should diffuse to even larger numbers of youth. As Derber and Flacks (1967: 72) state it:

> As the movement spreads, becomes more visible and increasingly focusses on issues affecting the immediate self-interests of students, we can expect that a much wider variety of students will be drawn to it, and that family background and tradition will be a less and less powerful predictor of who is an activist.

Intuitively, one would think in Louisiana, which is traditionally a politically conservative state, that anti-war sentiments would not predominate among youth. However, if the contentions of Dunlap (1970) and Derber and Flacks (1967) are logically extended along regional lines, one could hypothesize that certain geographic regions in the United States will soon experience increased student activism. That is, as more students are affected by the war and peer group influence (which would encourage activism) the impact of conservative political values of one's family of orientation will slowly diminish. The political orientations of young adolescents thus become important in terms of future student activism on college campuses.

METHODOLOGY

The Sample

Data were collected by trained interviewers in the spring of 1969. From each of the eight congressional districts in Louisiana, two schools (one urban and one rural) were randomly selected. The (random) sampling was adjusted to assure adequate racial balance. Additionally, four colleges and one trade school were selected. Questionnaires were administered to members of selected classes present on the day interviews were scheduled.

Analysis Techniques

A multivariate technique (least squares analysis of variance) was employed in the analysis. In order to meet the requirement of multivariate models that each observation (respondent) possess a valid response for each variable included in the model, all subjects not responding to any one of the items in the model had to be eliminated. Thus the original sample of 2,208 was reduced to 1,587. This resulted in a biasing of the analysis sample in the direction of more urban white students.

The analytical model included the following independent variables:

Variables	Coded Score
1. Race and sex:	
White male	= 1
White female	= 2
Black male	= 3
Black female	= 4
2. Family status:	
Parents living together	= 1
Both parents dead	= 2
Father dead	= 3
Mother dead	= 4
Parents divorced	= 5
Parents separated	= 6
3. Grade in school:	
Eighth grade	= 1
Ninth grade	= 2
Tenth grade	= 3
Eleventh grade	= 4
Twelfth grade	= 5
First year trade school	= 6
Second year trade school	= 7*
College freshman	= 8
College sophomore	= 9
College junior or higher	= 10

*No respondents in the analysis sample.

4. Residence:

City over 10,000 = 1
City 2,500 - 9,999 = 2
Town under 2,500 = 3
Country, not on farm = 4
Farm = 5

5. Religion:

Catholic = 1
Lutheran = 2
Methodist = 3
Baptist = 4
Episcopal = 5
Presbyterian = 6
Jewish = 7*
Universalist - Unitarian = 8*
Other = 9

*No respondents in the analysis sample.

6. Fathers occupation:

Professional = 1
Technical and skilled = 2
Semi-skilled = 3
Farm owner or manager = 4
Farm day worker or tenant = 5
Managerial = 6
Clerks and salespeople = 7
Service workers = 8
Protective services = 9
Unskilled workers = 10

7. Attitude toward hippie movement:

Strongly approve = 1
Approve = 2
Undecided = 3
Disapprove = 4
Strongly disapprove = 5

8. Attitude toward draft law:

Think draft law fair = 1
Think draft law unfair = 2

and the dependent variable of attitude toward the Vietnam War, ranging in value from 1 - strongly approve, to 5 - strongly disapprove, and considered to be at the ordinal level of measurement.

While the assumptions of parametric tests may make their application to ordinal data appear questionable, Labovitz (1970: 523) indicates that ordinal data may be feasibly analyzed by parametric tests, provided interpretation of results are explicitly tempered by this fact. The advantages of power of the test and clarity of results (Labovitz, 1970: 523) would seem to be worth the "risk", particularly in an exploratory study such as this.

The complete model including the main effects of the independent variables and their first order interaction contained degrees of freedom beyond the capacity of the computer program with which the authors were working (Harvey, 1960). In order to compensate for this limitation, a series of models were written containing the main effects and a subset of the total first order interactions. From these tests a final model was written which contained only those main effects and first order interactions significant at the .05 level of confidence. The degrees of freedom in this model were within the limits of the program. Additionally, the reduction of degrees of freedom increased the precision of the model by reducing rounding error. The final model included the effects of race and sex, attitude toward the hippie movement, attitude toward the draft law, grade in school, and residence; the interaction effect of attitude toward the hippie movement by grade in school; and the dependent variable of attitude toward the Vietnam War.

FINDINGS

Table 1 presents the results of the analysis of variance of the final model.

(Table 1 About Here)

The race and sex main effect revealed males to be less disapproving of the war than females. Blacks were more disapproving of the war than whites. Table 2 shows the least square mean orientation toward the war by race and sex categories. It should be noted that white males and black females represent the extremes, with black females most disapproving and white males least disapproving.

(Table 2 About Here)

Those approving of the "hippie movement" were most disapproving of the war. However, even those who disapproved of the "hippie movement" tended to manifest mean scores that indicate disapproval of the war (Table 3).

(Table 3 About Here)

Respondents who felt the draft law fair were more favorably oriented toward the war than respondents who thought the law to be unfair (Table 4). This finding is reflected in the .684 differential observed in least square mean scores in Table 4. While this difference may appear small, it represents slightly more than 10% of the total range of the dependent variable.

(Table 4 About Here)

Table 5 reveals an interesting finding. In general, the trend is for war disapproval to increase as size of residence decreases. For example, residents of cities over 10,000 were least disapproving of the war while youth living in the country, but not on a farm, were most disapproving.

(Table 5 About Here)

No readily interpretable pattern emerges from the array of least-squares means by grade in school. However, Table 6 reveals that eighth graders, first year trade school students and college sophomores were most disapproving of the war. All categories tended somewhat toward disapproval of the war.

(Table 6 About Here)

The only first order interaction effect significant at the .05 level was attitude toward the "hippie movement" by grade in school. Of 38 interaction categories, 33 tended toward disapproval of the war and 5 tended toward a score that reflects the "undecided" category. No category tended toward approval of the war. Those categories tending toward undecided are: twelth graders undecided about the "hippie movement"; college freshman disapproving the "hippie movement"; college freshman strongly disapproving the "hippie movement"; college freshmen disapproving the "hippie movement"; and college juniors or higher strongly disapproving the "hippie movement."

(Table 7 About Here)

DISCUSSION AND CONCLUSIONS

Generalizations from the findings of this study are limited for a number of reasons. First, the purposive sampling technique utilized in the collection of the data severely restricts the population to which generalizations can be made. Second, because the analysis was secondary, the variables employed in the final model are restricted and some of the stimulus-items utilized on the original questionnaire require improvement. Third, this study was essentially exploratory and therefore all findings should be interpreted as indicating areas for further verification. These limitations should be kept in mind for the discussion that follows.

Overall, the respondents manifested negative orientations toward the Vietnam War. The vast majority of all respondents either "disapproved" or were "undecided" about the involvement of the United States military forces in Vietnam. This fact is reflected in the least-squares mean Vietnam orientation score of 3.86.

The finding that black youth exhibited higher disapproval of the war than did white youth has implications for the political socialization process of adolescents. During the last three years numerous statements have been made concerning the over-representation of blacks in Vietnam. It appears likely that black adolescents view the participation of members of their race in the Vietnam War in terms of social discrimination. Furthermore, the finding of the significance of race and sex on war orientation is consistent with the traditionally accepted position that females are more pacifistic than males. This in turn may be attributed to sex role socialization.

That disapproval of the war was found to be higher in rural areas than in urban areas may be related more to the "draft status" of the respondents than their "dove" ideological position. That is, the structure of the draft law prior to the lottery discriminated against youth residing in small towns and rural areas. The fact that relatively fewer of these youth pursue education beyond high school, thus not acquiring deferment, means that relative to larger urban areas small town and rural youth comprised a disproportionate share of the draft eligible manpower at any given time.

As would be expected, war disapproval was also found to be positively related to approval of the "hippie movement" and negatively related to approval of the draft laws. Although those approving the "hippie movement" were strongest in disapproval of the war, the single category second in severity of disapproval of the war was that strongly disapproving the "hippie movement". This observed relation between attitude toward the war and attitude toward the "hippie movement", taken as a rough index of liberalism-conservatism, may represent the beginning of ideological polarization. The combined facts of the stronger disapproval of the war among those thinking the draft law unfair and the larger proportion of respondents thinking the draft law unfair, may imply that disapproval of the war may stem in part from a negative view of the equity of the means of conducting the war as well as from a politico-ideological base.

While the pattern displayed in the interaction of grade in school by attitude toward the "hippie movement" is not readily interpretable, it does appear that a general dissatisfaction with the war is expressed by the youth in this sample. No category in the analysis possessed a least-squares mean tending toward approval of the war. This is not, however, an index of the nature or degree of activism in which these young people are willing to involve themselves in expression of this disapproval. Perhaps if activism gains wider approval, a dwindling "silent majority" will result. The authors are presently engaged in a study which seeks to find answers to the question of potential activism among youth.

TABLE 1 - Least-Squares Analysis of Variance of Orientations Toward the Vietnam War

Source	Degrees of Freedom	Sums of Squares	Mean Squares	F*
Total	1,587	2499.740		
Total Reduction	46	460.741		
Mu - YM	1	15.142		
Race and Sex	3	85.157	28.386	21.453
Attitude toward the Hippie Movement	4	33.880	8.470	6.401
Attitude toward the Draft Law	1	169.934	159.934	128.430
Grade in School	8	30.555	3.819	2.887
Residence	4	19.488	4.872	3.582
Attitude toward the Hippie Movement by Grade in School	25	66.168	2.647	2.000
Remainder	1,541	2038.998	1.323	

*All F-values are significant, minimally, at the .05 level of confidence.

TABLE 2 - Least-Squares Mean Orientations Toward the Vietnam Way by Race and Sex Categories.

Race and Sex Categories		Least-Squares Means
White Males	(1)	3.494
White Females	(2)	3.843
Black Males	(3)	3.953
Black Females	(4)	4.157

TABLE 3 - Least-Squares Mean Orientation Toward the Vietnam War by Attitude Toward the "Hippie-Movement".

Attitude Toward the Hippie Movement		Least-Squares Means
Strongly Approve	(1)	4.237
Approve	(2)	3.977
Undecided	(3)	3.764
Disapprove	(4)	3.569
Strongly Disapprove	(5)	3.762

TABLE 4 - Least-Squares Mean Orientation Toward the Vietnam War by Attitude Toward the Draft Law.

Attitude Toward the Draft Law		Least-Squares Means
Think Draft Law Fair	(1)	3.520
Think Draft Law Unfair	(2)	4.204

TABLE 5 - Least-Squares Mean Orientation Toward the Vietnam War by Size of Residence Community.

Residence		Least-Squares Means
City over 10,000	(1)	3.732
City 2,500-9,999	(2)	3.740
Town under 2,500	(3)	3.945
Country, not on Farm	(4)	4.036
Farm	(5)	3.855

TABLE 6 - Least-Squares Mean Orientation Toward the Vietnam War by Grade in School.

Grade in School		Least-Squares Means
Eighth Grade	(1)	4.107
Ninth Grade	(2)	3.813
Tenth Grade	(3)	3.613
Eleventh Grade	(4)	3.708
Twelfth Grade	(5)	3.814
First Year Trade School	(6)	4.149
College Freshman	(8)	3.621
College Sophomore	(9)	4.085
College Junior or Higher	(10)	3.846

TABLE 7 - Least-Squares Mean Orientation Toward the Vietnam War by Grade in School and Attitude Toward the "Hippie Movement".

Grade in School		Strongly Approve (1)	Approve (2)	Undecided (3)	Disapprove (4)	Strongly Disapprove (5)
8th Grade	(1)	4.578	3.993	3.968	3.855	4.141
9th Grade	(2)	3.957	3.829	3.862	3.509	3.907
10th Grade	(3)	3.540	3.561	3.617	3.798	3.544
11th Grade	(4)	3.881	3.783	3.779	3.391	3.703
12th Grade	(5)	4.975	3.516	3.155^{a}	3.579	3.844
1st. Yr. Tr. Sch.	(6)	*	*	*	*	4.049
Col. Freshman	(8)	*	4.002	3.535	3.268^{a}	3.305^{a}
Col. Sophomore	(9)	*	4.441	4.184	3.314^{a}	4.025
Col. Junior or Higher	(10)	*	4.400	3.722	3.548	3.340^{a}

*Respondents in these interaction categories were deleted from the sample due to extremely small n's.

REFERENCES

Block, Jeanne, *et al.* (1968). "Activism and Apathy in Contemporary Adolescents." In James F. Adams (ed.) *Understanding Adolescence* (Boston: Allyn and Bacon, Inc.), pp. 198-231.

Derber, Charles and Richard Flacks (1967). "An Exploration of the Value System of Radical Student Activists and Their Parents." Paper presented at the Annual Meeting of the ASA, San Francisco.

Dunlap, Riley (1970). "Radical and Conservative Student Activists: A Comparison of Family Backgrounds." *Pacific Sociological Review*, 13, Summer, pp. 171-181.

Harvey, Walter R. (1960). *Least Squares Analysis of Data With Unequal Subclass Numbers. Washington: U.S.D.A.* Agricultural Research Service Bulletin No. 20-8.

Jansen, David G., *et al.* (1968). "Characteristics Associated With Campus Social-Political Action Leadership." *Journal of Counseling Psychology*, 15, November, pp. 552-562.

Keniston, Kenneth (1968). *Young Radicals: Notes on Committed Youth*, (New York: Harcourt, Brace and World).

Labovitz, Sanford (1970). "The Assignment of Numbers to Rank Order Categories." *American Sociological Review*, 35, Jun pp. 515-524.

Soloman, Frederic and Jacob R. Fishman (1964). "Youth and Peace: A Psycho-Social Study of Peace Demonstrations in Washington, D.C.." *The Journal of Social Issues*, 20, October, pp. 54-73.

Westby, David L. and Richard G. Braungart (1966). "Class and Politics in the Family Backgrounds of Student Political Activism." *American Sociological Review*, 31, October, pp. 690-692.

A Theoretical Perspective on Community Change and Development

by

Paul R. Eberts*
Cornell University

by

Community development and change is the problem with which this paper deals. It is intended to be heuristic more than definitive, and to stimulate cross-disciplinary thinking on this contemporary topic.

The main procedure followed in the paper will be to examine various figures and diagrams presented below. It is my feeling that such a technique facilitates cross-disciplinary communication more readily than other more verbal alternatives.

Because of the large number of figures to be presented, it will also be impossible to be definitive about each one. It is my hope that the figures are not misleading in their essence, however, so that the reader may feel free -- indeed is encouraged -- to extend their implications beyond those set down here.

It should also be noted that the main purpose of the paper is to set forth a theoretical framework for the study of social change. It is my feeling that a general framework for the study of social change is still to be developed. This paper is to contribute to developing that framework. In any case, social change will be a key orienting concept throughout the paper. Each figure will be related to the social change process.

Our point of departure is presented in Figure One. In essence, it depicts the five basic types of social groups which social scientists study, and their fundamental relations to each other. The five types of groups are: society, depicted by the large circle; community, depicted by the triangle; large-scale formal associations, such as a big corporation, depicted by the rectangle; small group informal associations or primary associations, depicted by the squares; and a role position or personality, depicted by the dots in the Figure.

---

*Throughout this paper I will use the collective "we." I mean to use it seriously. Much of the conceptual and empirical work behind the paper was stimulated and executed by my colleagues Pierre Clavel, Carol Owen, Fred Schmidt, John Eby, Pluma Kluess and others connected to the Data Bank for Social Accounting Departmental Project in Rural Sociology at Cornell. I gratefully acknowledge their uncited stimuli, support, and contributions.

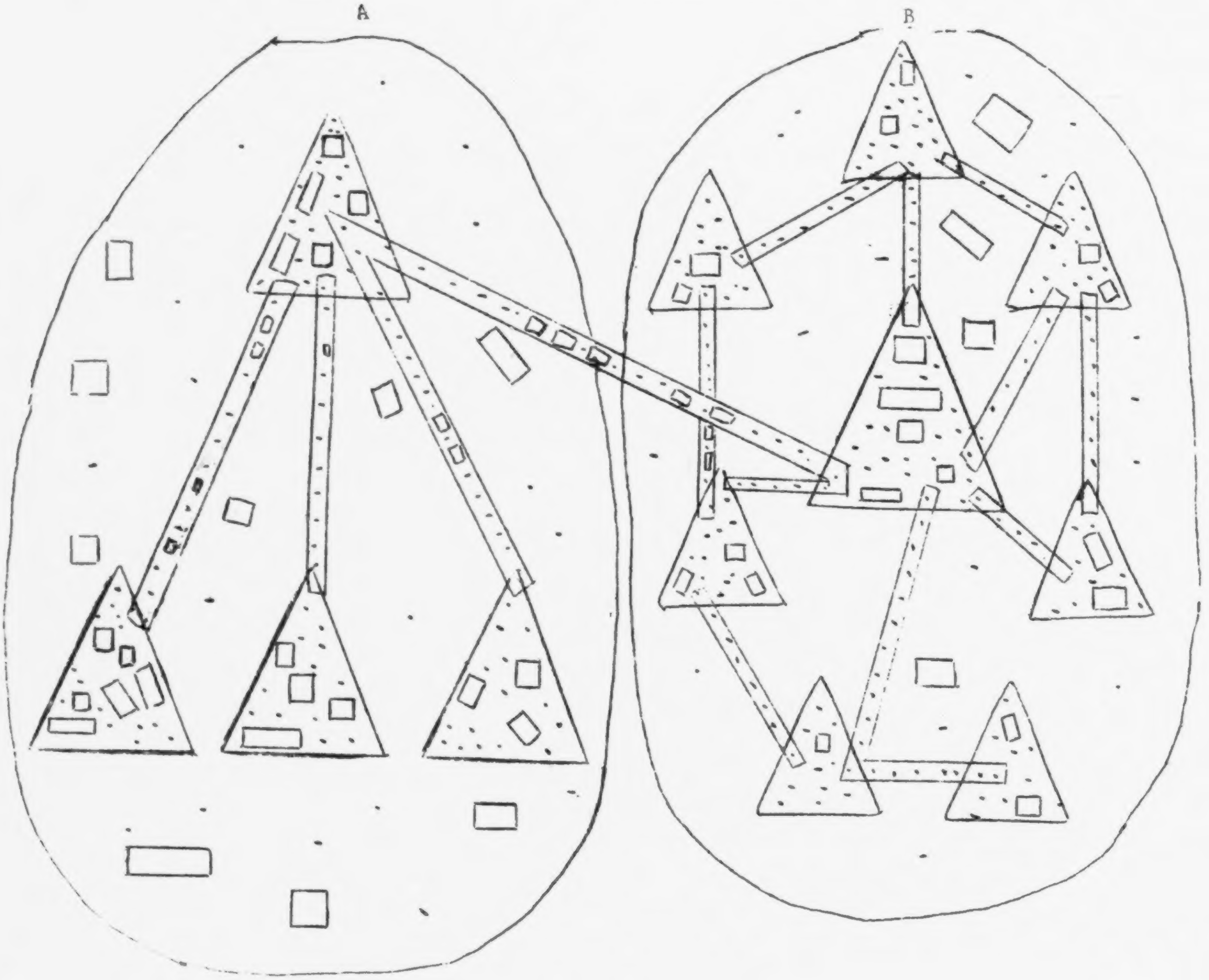
The large-scale formal associations are probably the most ambiguous in the diagram. What I intend to show here is that various communities within a society are connected to each other in essence by large-scale associations. For instance, in Figure One, the various communities, represented by triangles, are connected to each other by large-scale associations, represented by rectangles. The one rectangle which connects not just two communities within Society A but also connects the large community within Society A to the large community within Society B, as well as to a sub-community within Society B, might be a given international corporation such as General Motors Corporation or Standard Oil of New Jersey.

It is these large-scale formal associations which are in reality the connecting linkages between communities in any given society or between societies. Rural areas are connected to urban areas by such organizations, associations, or institutions, and, one urban place is also connected to another urban place by these large-scale associations.

One further characteristic of the groups depicted in Figure One is also relevant here. Although it remains to be proven one way or another, it is my judgment that each of these basic types of social units has its own internal dynamics, and therefore its own theory to explain what is happening in its developments over time. If this proposition is correct, therefore, a theory which explains the development of a society will probably be quite different from a theory -- that is, the set of fundamental concepts and the relations of these concepts in propositional form -- which is developed for any other sociological unit. It may be, however, that the society level of analysis (or level of abstraction) is similar enough to a community level of analysis in their fundamental operations that the theories of change for each will be similar. Both units are similar, for instance, in that they are geographically located social groupings, inclusive of other units, and concerned with the daily sustenance of their respective populations.

Nevertheless, it would seem incumbent upon us to start from the assumption that the theories are not similar, so that we may more carefully examine the dynamics of any given unit. Moreover, since our primary concern

Figure One. Hypothetical Schematic Relations of Sociological Elements



◯ = A Society (two are depicted here)

△ = A Community (Twelve are depicted here)

▭ = A Large-Scale Formal Association (twenty-seven are depicted here)

□ = A Primary or Informal Association (many are inferred in each type of larger grouping, as well as some outside these groupings)

• = A Role-Position (Innumerable are inferred in each type of larger grouping, as well as some outside these groupings.)

in this paper is for understanding development in non-metropolitan communities, we cannot linger on the subtleties of development in each sociological units of analysis.

In any case, it is my contention that the fundamental stimulus to social change in mon-metropolitan communities is the appearance of a new formal organization type linkage between it and some other community or communities, be they rural or urban. The linkages we have studied thus far in our research at Cornell have been the linkages provided by the 200 largest corporations establishing branch plants in various non-metropolitan communities throughout the state. We have assumed that the establishment of such a plant by such large corporations would have enough sociological effect on relatively small communities that these effects could be studied empirically. We also think that linkages provided by large-scale associations other than the 200 largest corporations, such associations as those of federal or state government programs, when the governments establish offices in communities for various kinds of activities, or when other voluntary institutions -- such as the establishment of a church or of a political party or of a newspaper or a new program by Cooperative Extension or something else similar -- may also provide stimulus to social change in those communities. We have not, however, attempted to assess the effects of the latter types of associations empirically.

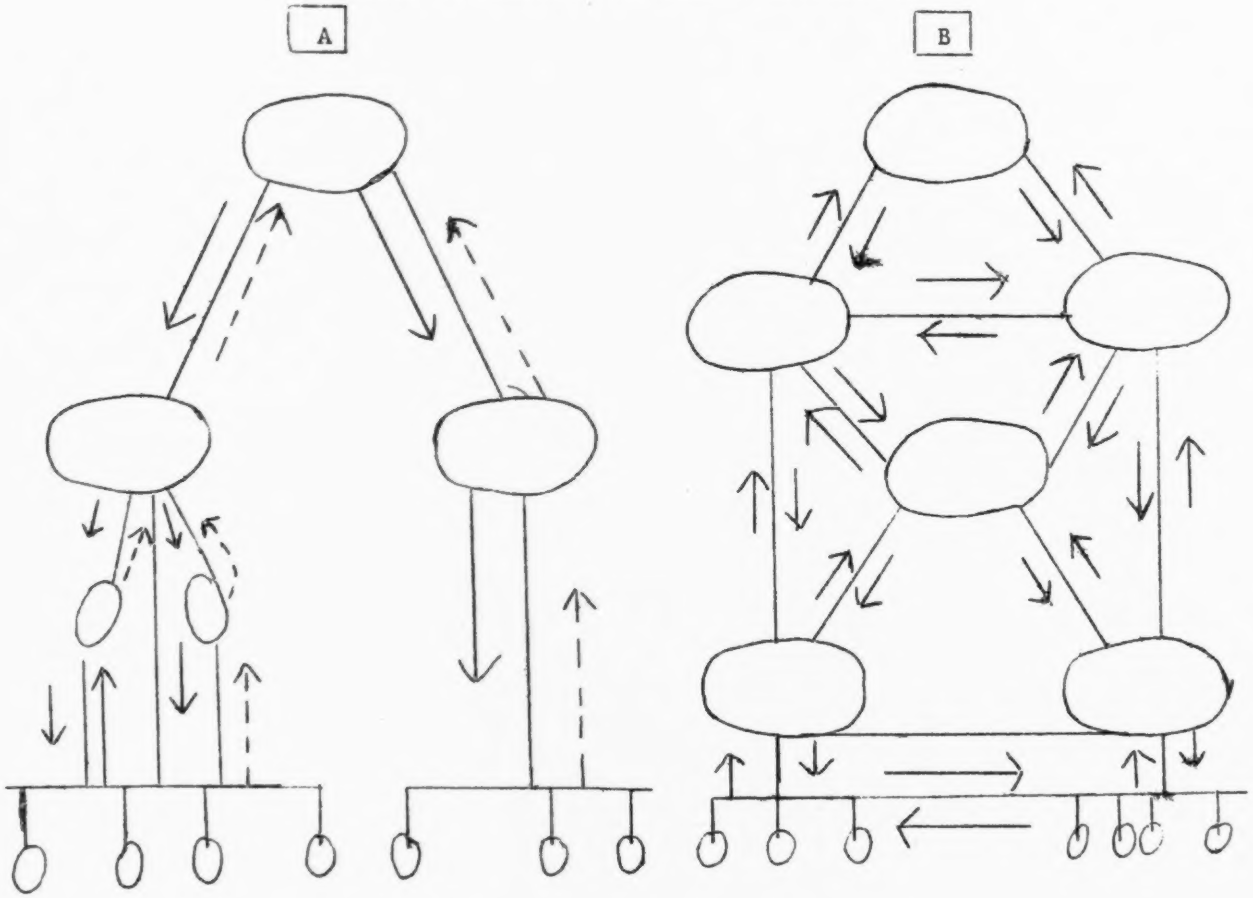
One final note should be made about linkages. Such linkages occur primarily through decisions not made in the community, but made in offices and organizations which are outside or beyond the basic reach of people in the local community. People in the local community can often reject a decision to establish a linkage in a given locality, but it is seldom that they can initiate such a decision. The decision to locate a plant of IBM, for instance, is made in offices quite beyond the reach of a given local community. Once such a decision is made, however, local businessmen may then be able to organize themselves to delay, and in some cases defeat, the new plant from becoming established in it.

Change in linkages to other communities and/or to a more inclusive regional or national political economy, then, becomes the fundamental variable to stimulate other social changes in a community. I imagine there are other possible variables which can stimulate change in communities. But I also think that in most cases some type of linkage variable will be present when these other social changes occur.

The next step in the social change process is to depict more clearly what in reality changes when a new linkage appears in a community. It is hypothesized by us that one of the first changes to occur will be a change in the patterns of communication within the community. Such a change is depicted schematically, again, in Figure Two. We assume that over time in a given community a pattern of communication between social positions is developed, which, if it does not receive interference from outside forces such as new linkages, tends to become rather stable, or even rigidified, into a kind of equilibrium.

Such a condition is schematically depicted in Set A of Figure Two. Under this condition what tends to happen is that, as communications go largely and relatively freely from one sociological sub-unit to another, power relations develop. Certain sub-units become much more powerful than other sub-units, so that the more powerful sub-units feel more free to communicate to the less powerful sub-units, but the less powerful sub-units are relatively cautious in the manner in which they return communications. This, again, is depicted in Set A of Figure Two. The arrows from the sub-unit at the top of Part A are solid arrows, depicting a freely and well-used direction of communication, but the arrows returning to the top sub-unit are only broken arrows depicting a much more cautious type of communication.

The appearance of a new linkage in a community tends to upset the previously established power relations. Especially when the new linkage is a large, important, and economically and politically powerful association like one of the 200 largest corporations, its appearance in a community will be a power with which the local power structure must contend by integrating it into the various aspects of community structure. Its members will feel free to communicate with others, and will expect to fit almost automatically into the top of the power structure, Hence, Figure Two. A Schematic Model for the Structure of Fluidity as a Variable in Institutions and/or Associations



Key:

⬯ = Any social unit included within a society, community, association or institution

—— = A Communication channel

⟶ = A well-used, free and open direction of communications (implies relative status equality between sub-units)

- - - → = A sometimes used direction of communications (implies relative differentiality between sub-units)

Three immediately perceivable types of differences between patterns in Set A and Set B which can be the basis of social system variables:

(1) Number of distinct sub-units (B has one more)

(2) Structure of communication patterns (sub-units in B have more channels per unit for use)

(3) Use of communication channels (sub-units in B have more free and open use of the communication channels, i. e. there is more fluidity in B than in A)

it will act to communicate freely, and initiate a higher communication flow process in the community.

Since these large corporations also tend to be much more cosmopolitan in their orientations to community problems, and since they have access to many resources in a larger political economy, it is also quite likely that they will bring new perspectives and resources into the community to challenge the normal order of things. Such challenges, we also hypothesize, will stimulate challenges from other previously more subordinate types of sub-units. Thus, we come to our basic prediction that the changes in linkages will produce changes in the communication patterns of a given local community so that the communication patterns will become more fluid, that is more open, as if they are between units which are more free and equal with each other.

The variable which we develop out of this schematic model for the structure of communications we call fluidity. It is depicted in Set B of Figure Two. It shows that a new linkage has appeared in the old structure. The new linkage is in the middle of Set B. It also shows that the channels of communications between the various sub-units have now become more free and open, as a result of the appearance of this linkage. Through a kind of "halo effect" such openness in certain channels of communication have carried over to all of the channels of communication in the community. By this we are hypothesizing that the extent of fluidity in the power structure, among and between the most powerful sub-units in a given community, has as effect to set the norms for communication within nearly all of the sub-units in the community.

Another way of depicting this flow of information and resources in a community is presented in Figure Three. It is assumed that if there is a lot of flow of information and resources in a given community then two things will become apparent within and between the sub-units of that community. Since the sub-units of a community are basically the organizations -- that is the business and voluntary organizations in the community as well as the people, the personalities or role positions within and between these organizations -- then fluidity among and between these sub-units would be indicated by the two conditions of 1) competition of ideas and resources, and 2) participation by the various sub-units in the competitive political economic communication process of the community. These two basic dimensions, competition and participation, probably have what is known statistically as interaction effects. Therefore, they can and should be depicted in a four-fold typology as presented in Figure Three.

Figure Three shows the four types of communities which would appear from a simple cross classification of competition with participation. We feel these types are basic, that is, would explain a high degree of variance in other important variables in analyses of community behavior, as well as basic in the sense that every community can be classified in one of these four cells of the typology, and that we can get consensus from the community members that their community belongs in one of these four cells.

The four cells of the typology may be labelled pluralist, elitest competitive, cohesive, and fragmented. In Figure Three we have attempted to give a basic characterization of the kinds of activities which appear in the communities characterized by either high or low competition as cross classified with either high or low participation. The basic idea is that in pluralist communities there is much competition and much participation with many new ideas as well as resources flowing between the various sub-units. With respect to attitudes of the sub-units to each other, there would be greater feelings of mutual loyalty between them and much less alienation in communities on this cell compared to those in other cells.

The type of communities most different from the pluralist communities are those with low competition and low participation, the fragmented communities. As noted in Figure Three, these communities are most characterized by isolated masses. The various sub-units do not communicate with each other, and therefore tend to develop misconceptions about their own role in the community, as well as the roles of other sub-units. Thus, there is probably a high degree of paranoia apparent within and between the various sub-units. The basic concept of isolated masses

Figure Three. A Typology Based on the Variable Model for Fluidity.

	Competition Between Sub-Units in Local Political Economy	
	Hi	Lo
Hi	Type I: Pluralist: e pluribus unum, much competition, dissent, discussion, change; highly fluid situation; but patterns of change are expected; no "unaccountable" power structure; probable equality between elements within given unit.	Type III. Cohesive: Elements communicate under a "single frame of reference;" remarkable stability; dissenting minorities ineffective and resented by majority; power structure accountable to majority, but not to minority; not very fluid.
Sub-Unit Participation in Competitive Political-Economic Communication and Resource Exchange Process Lo	Type II. Elitist Competitive: Similar to Type I, but without extensive participation of mass elements; somewhat fluid; elites accountable mostly to each other; perhaps large inequalities and high element mobility in and out of unit; "individuated" responses by mass of elements; little counter-elite collective action.	Type IV. Fragmented: Elements do not pass information; isolated "masses" of elements, which then respond to own fears rather than objective threats; highly unstable, "flammable" "wildcat" situation; often dominated by an unrecognized power structure; least fluid - stagnant.

was developed by Clark Kerr in an article on Wildcat Strikes. But such a situation also carries over to various sub-segments of the population in rural communities as well as, for instance, in urban ghettoes.

Type III, cohesive communities, are those in which a vast majority of people all seem to have similar norms to each other and communicate well with each other, including the exchange of resources, with relatively little conflict. People in these communities, however, of which Vidich and Bensman's Small Town in Mass Society is a very good example, often do not recognize their own problems, especially the problems of the more disadvantaged minority groups in their midst. In Small Town in Mass Society, for instance, although people knew that there were poor people living on the fringes of the town, they did not know the people personally and, in effect, psychologically obliterated their presence from their memories. Thus, in a cohesive society everything can look very good on the surface, but, in effect, they are, as the Old Testament prophets Amos and Micah put it, "like a basket of summer fruit." That is, things look good on the outside, but when a crisis occurs, the communities can be consumed in a great deal of conflict -- they are soft and squishy inside, "rotten to the core."

That is a rather harsh characterization of these small towns, but one which is certainly not very different from what we see in the fundamental authoritarianism of many of the small towns we know when they are challenged by minorities seeking their democratic rights as set down in the Bill of Rights of our Constitution. This is, of course, most apparent with regard to the Blacks' civil rights movement in the South, the hippies civil rights movement in the Far West, and the students' civil rights movement in the North.

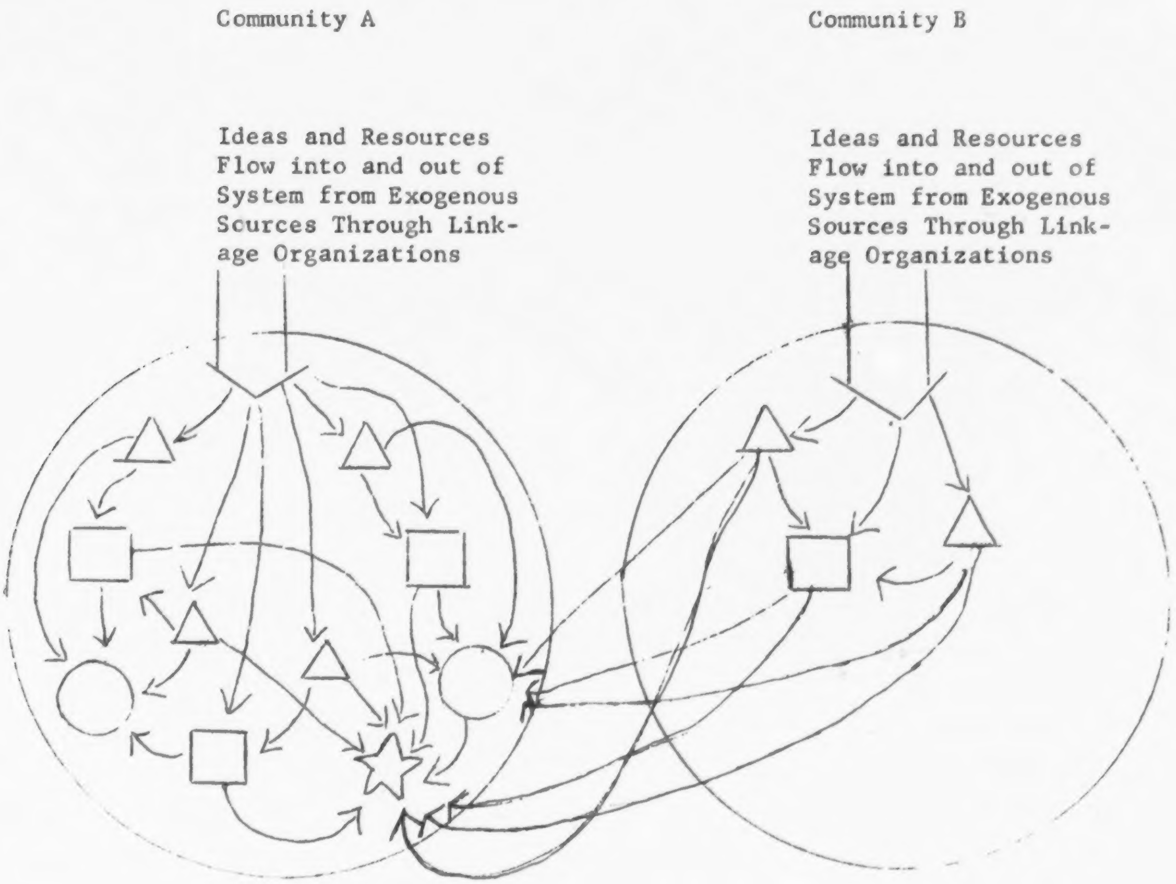
The final type of community is characterized by elite competition. In this type of community, there is a set of elites competing with another set of elites, but basically neither of these has attempted to enlist the rest of the population in their competition and conflicts, so that a large minority, and in many cases a majority, of the population, simply do not participate effectively in any aspect of the politic-economic process. This might be the kind of community found where a large corporation has moved into a rural area to challenge a relatively well-organized and strong set of farm organizations for hegemony. It is probable that such a corporation would not be unionized, so that many of the workers would feel confused over their place in the resulting competition. Such a situation would appear to be somewhat unstable, and would tend to move toward either a cohesive type or pluralist type of community.

In any case, following the appearance of linkages in a community, we would expect that the political economic communication, resource and information exchange process would move from a Type Four, Three or Two toward a higher type, and in many cases toward a temporary, at least, pluralism in the community. A fragmented type of community might simply move toward a more cohesive one, a cohesive one into an elitest competitive, and an elitest competitive into a pluralist. On the other hand, it may be that a fragmented one would jump directly into a pluralist one.

The major principle is that change in linkages produces a change in fluidity. The increased fluidity in a system, that is the increased flow of information and resources in a system, as well as the general increased ambiguities between inferiority and superiority in status positions and power relations, is that new ideas and new resources become available to sub-units in a community for implementation. As a result, two things tend to occur in communities. The first is that new services (differentiated specialization) appear to better meet the needs of the local sub-units; and, second, if fluidity remains high, the exchange between the various services, both those already present and the new ones, increases. Such a condition is schematically depicted in Figure Four.

Figure Four intends to show that equal resources are flowing into communities A and B. But, community A has both greater specialized services, differentiation, within the system and it is assumed that it also has greater fluidity within it. Thus more of these resources flow from one elementary unit, such as a grocery store, to other elementary units such as hardware stores, to yet third and fourth elementary units, clothing stores and department stores. Since community B has neither

Figure Four. A Possible Pattern of Relations between Differentiated Services in Two Communities.


Community A
Community B
Ideas and Resources Flow into and out of System from Exogenous Sources Through Linkage Organizations
Ideas and Resources Flow into and out of System from Exogenous Sources Through Linkage Organizations

△ = Elementary Unit with a basic service, i.e. one needed by a population, e.g. a grocery store.

□ = Elementary Unit of a second basic service, e.g. Hardware Store.

○ = Elementary Unit of a third basic service, e.g. a Clothing Store.

☆ = Elementary Unit of a fourth basic service, e.g. a Department Store.

clothing stores nor department stores within its boundaries, however, and since we have assumed there is less fluidity in B, then the people in community B must go to community A to meet their clothing and department store needs.

A major result of contrasting community A with B, therefore, is that the Gross Community Product of A would be much greater than in B. The concept of Gross Community Product (GCP) is meant here to parallel the concept of Gross National Product (GNP). It could be measured by the total amount of exchange of goods and services between various sub-units in any community system. Thus since there is a much greater amount of exchange going on in community A than in B, due to greater differentiation-specialization and the assumed greater fluidity, then the Gross Community Product of community A will also be greater than in B, despite the fact equal resources are initially flowing into them. In other words, the enclosed specialization-differentiation and fluidity in A gives it a larger "multiplier ratio" or "multiplier effect" when compared to B.

We suspect that the process of increasing specialization and differentiation may seem like a self-fulfilling prophecy, that is, increased specialization-differentiation results in increased specialization-differentiation *ad infinitum*. But it may be also that such *increasing differentiation depends on two other forces, one of them being fluidity and the other being increased linkages to make and keep the increased fluidity high*. As differentiation increases in communities, certain more complex services require resources which go beyond the local community in order to find organizations which can more efficiently meet the needs of the local population. Thus, if people in a community come to need insurance protection, they usually must buy such protection from large firms outside the boundaries of their community. Or, when enough people need such protection, a large firm will establish an office, linkage, in the community to meet the need.

Two further implications should be noted about this process. The first is that, lest we forget our past history, we should remind ourselves that in previous times, say a hundred years ago, many small rural communities were more differentiated than they are today. Because of poor transportation facilities, among other things, local rural communities very often had to provide a series of services to local populations which simply are not provided now. A second part of this change through time, however, should not be entirely overlooked. Some increasingly complex services could and are being adequately supplied by local organizations, but national organizations such as large retail chain establishments actually depend upon expansion, or so they perceive themselves, in order to survive. Thus, "imperialistically," they will move into communities, often underselling local businesses in order to establish themselves until local businessmen have found it uneconomic to continue in business, so that the national chains can establish a monopoly.

A second implication, on the relationship of fluidity to differentiation, is that social scientists are not really aware of what the limits of differentiation in high fluid situations may be. Most social scientists believe that a certain population size is needed in order for a given more differentiated service to appear in a local community. What we are suggesting here is that it may be more important to understand the amount of use which a local population makes of such facilities, that is how much fluidity exists in a local community, rather than simply that a certain population size exists. The correlation in communities with more differentiated services and population sizes is high, a .71 for New York State communities, but that still leaves about half the variance in differentiated services unexplained. We are suggesting that a considerable proportion of this half of the unexplained variance may be explained by the amount of fluidity found within the more differentiated places. Certainly, on an intuitive level, if more people can be persuaded to use a given kind of service, then it is more likely that the appearance of such a service would survive even if the population size was smaller. Taking this line of reasoning to an extreme, if perfect fluidity would exist in a system, that is, where everybody would be persuaded not to do anything for themselves except their own specialties, then, but only then, would the limits of specialization-differentiation in a system depend only upon the population size in that system.

Tables Five and Six present in more detail a Guttman Scale-type ordering of various kinds of services which are likely to appear in

Table Five

Wakeley-Carroll Guttman Scale

271 New York State Communities of Population 2,500 or Greater

Menzel's Coefficient of Scalability .785

Order for Scoring	Frequency	Errors	Description of Items
1	271	0	Grocery Store
2	261	8	Plumbing Contractor
3	261	4	Physician
4	238	10	Household Appliance Store
5	214	15	Furniture Store
6	123	27	General Hospital
7	120	31	Local Newspaper
8	89	8	Chamber of Commerce
9	65	8	Wholesale Drug Company
10	9	0	Television Station

Table Six

Lee and Clavel Guttman Scale

364 Counties in Appalachia-Northeast
from Dun and Bradstreet Measures

Menzel's Coefficient of Scalability .770

Order for Scoring	Frequency	Errors	Description of Items
1	328	0	Post Office
2	328	0	Gas Station
3	325	2	Drug Store
4	322	4	Furniture Store
5	317	8	Apparel and Accessory Store
6	316	7	Printing and Publishing
7	314	7	Jewelry
8	308	16	Dry Cleaning and Dyeing Plant
9	300	15	Wholesale Food
10	299	8	Wholesale Auto and Auto Equipment
11	239	39	Long Distance Trucking
12	230	38	Commercial Printing
13	225	30	Photo Studios
14	208	44	Department Stores
15	207	43	Wholesale Machinery
16	195	44	Radio Broadcasting
17	187	44	Taxicabs
18	186	26	Music Store
19	142	30	Book Store
20	111	31	Wholesale Drugs
21	89	37	Used Clothes and Shoe Store
22	64	11	Clerical Services (Duplicating Addressing, Mailing, etc.)
23	65	21	T. V. Broadcasting
24	53	6	Blueprinting and Photocopying
25	14	11	News Syndicate
26	12	0	Business Loan (Short Term Credit Institutions)

communities. It is only common sense that certain types of services would be successful in communities whereas other types of services, perhaps those requiring higher fluidity or greater population size, would not succeed. Wakeley and Carroll found in the early 1960's that the order in which various types of services appear in communities is empirically demonstrable. They took 271 of the 326 places over 2,500 population in New York State and examined them for the appearance of various kinds of services in them. They discovered, as seen in Table Five, a rank ordering of communities with regard to the appearance of different types of services. Thus it was shown that all 271 centers had a grocery store. But only 261 of these centers had a grocery store and a plumbing contractor, and a physician. And only 238 of these centers had a grocery store, a plumbing contractor, a physician, and a household appliance store. By examining the description of the items in Table Five as well as their instance of appearance it was then possible for them to rank order these communities into those as having greater levels of specialization-differentiation in the services, that is, a greater number of different types of services, and those with lower levels of differentiation in these services. Communities with higher levels of differentiation had all of the services that communities with next lower levels of differentiation had plus an additional service.

Whereas Wakeley and Carroll produced this scale for 271 places in New York State, Lee and Clavel extended this scale both in terms of number of items and in terms of number of places for which the scale is operable. Table Six presents the results of his scale. It is a 26-item scale for the largest central places for 364 counties in the Appalachia and Northeast United States. The 12-item scale in Table Five discriminates reasonably well on smaller places of New York State, but the 26-item scale in Table Six discriminates larger places more adequately.

The creation of such scales suggests at least one important policy implication for people concerned to assist local populations in obtaining better services for themselves. If the scales are correct, and we have little reason to think that they are not -- indeed we believe that computer analysis of Dun and Bradstreet tapes would produce even more detailed and accurate scales -- then if fluidity is high enough in a particular local system, the local system should be able to support the next highest level of differentiation beyond the one in which it is currently engaged. Likewise, if a local system has "errors" in the scale, then a business which "fills in the error" should also be successful.

For instance, it is apparent that some of the 322 communities which have furniture stores, as reported in Table Six, represent errors in the differentiation process. Either these communities have furniture stores when they do not have drug stores, gas stations or post offices, or they do not have furniture stores when they already have apparel and accessary stores. Thus, they represent errors in the scheme. Again, if our reasoning is correct, then the appearance of furniture stores in these communities should be successful economic ventures, especially if the fluidity of these communities is high.

Despite that increased specialization-differentiation usually provides greater services for a population, unfortunately, empirical evidence shows that differentiation is not an unalloyed good. Differentiation has three problems. First, places with higher differentiation are generally also places which have greater poverty. Part of the reason for the greater poverty is because many of the retail services which make up the differentiation scale are composed of organizations which are small and have relatively many unskilled or very low skilled role-positions in them. The essentially tertiary organizations which comprise the differentiation scale tend to have lower wage rates than organizations which represent secondary or primary industry.

Moreover, communities with higher levels of differentiation tend to attract people through migration who have fewer marketable skills. Relatively unskilled people recognize that they cannot get jobs in communities where industrial organizations require skills as prerequisites to the job. Thus, they are more likely to migrate to places which have unskilled jobs for them to fill. Thus, in the process, and especially when there is general unemployment in the economy, more people migrate to the more highly specialized-differentiated communities than can actually find employment in them. Thus, some of the migrants will find that they must go on unemployment rolls, which also indexes poverty in these communities.

The third problem related to the differentiation-migration chain is that migration and poverty tend to reduce fluidity in a community. New migrants into communities, especially poor new migrants, do not feel confident enough to participate in the political economic process. They are, instead, often very suspicious of exchanging information and resources with other people. As a result, the fluidity in such communities declines. But when fluidity declines in a community the probability of a community being able to differentiate into more complex levels becomes lower. Thus, these communities experience lower fluidity with the result that they tend to become more rigid in their ideas, communications, and resource exchange patterns, unless new linkages appear to restimulate the fluidity.

All of these things are depicted in Figure Seven, A General Model of Community Macro-System Change. The linkages in Time Stage I increase fluidity in Time Stage II, which increases differentiation in Time Stage III, which increases migration and poverty and very quickly decreases fluidity in Time Stage IV so that the system comes to a kind of equilibrium of declining fluidity or increasing rigidity. Then, except when new linkages appear, "social time" in the community stops and it rigidifies. With new linkages, however, the determination of which, as we noted earlier, is made by organizations largely beyond the control of the given community, and apparently to take advantage of short-term poverty conditions in the communities, fluidity will again increase, so that the system can differentiate and serve the population needs more adequately.

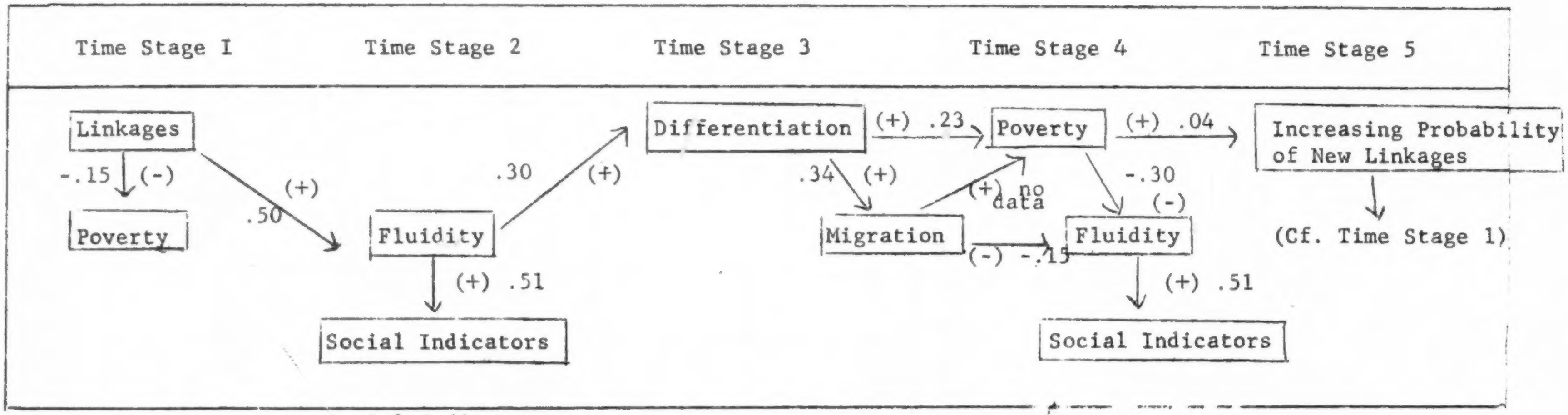
One other important part of the general model may be noted. This relates to the concept of social indicators. The social indicators concept raises a host of problems, not the least of which is what do social indicators indicate? Without attacking the problem directly, we use the concept social indicators here to mean indicators of things which most people think are good for people. This excludes the social indicators which might mean that people would agree they are good for business or for economic growth, or for beauty, or for military purposes, or good primarily for some more advantaged population segment. By this I mean social indicators to indicate things like: that more disadvantaged segments of the population are getting a better education, that they are receiving more adequate health care, that infant mortality is going down, that hospital care is available to them, and that their incomes are going up. By my usage, social indicators are intended to indicate that people, and primarily more disadvantaged people, are receiving more adequate attention in having their needs met. They are people-oriented indicators.

Given this frame of reference, what empirical research studies, including our own, seem to show is that people-oriented social indicators vary directly and positively with the level of fluidity in a system, whereas the thing-oriented social indicators vary inversely and negatively. Thus, where people participate more, and more competitively, in the political-economic process then attention to the needs of people will be better met by the system.

With regard to the general model given in Figure Seven, therefore, it is hypothesized that social indicators should be higher in Time Stage II when fluidity is increasing than they should in Time Stage IV when fluidity is decreasing. Increasing fluidity should lead to increasing levels on the people-oriented social indicators and decreasing fluidity should lead to decreasing levels on these social indicators. To put it another way, when systems are more pluralistic, that is when they have a more thorough-going democracy of participation and competition, then more adequate attention will be paid to the needs of people in those systems. Likewise, research is showing that where the system is less participatory, or less pluralistic, or, again, more rigid, then various sub-groups in the population can more easily encourage the systems to serve its population needs as opposed to people's population needs. Hawley, for instance, has shown that where a relatively small group of people are involved in the political-economic process, then urban renewal, which is basically a business-oriented federal subsidy, is more likely to reach success in a community.

This brings us to the final figure, Figure Eight, which is a schematic representation of the relation of four types of variables in social indicators to each other. For the sake of parallelism, these four

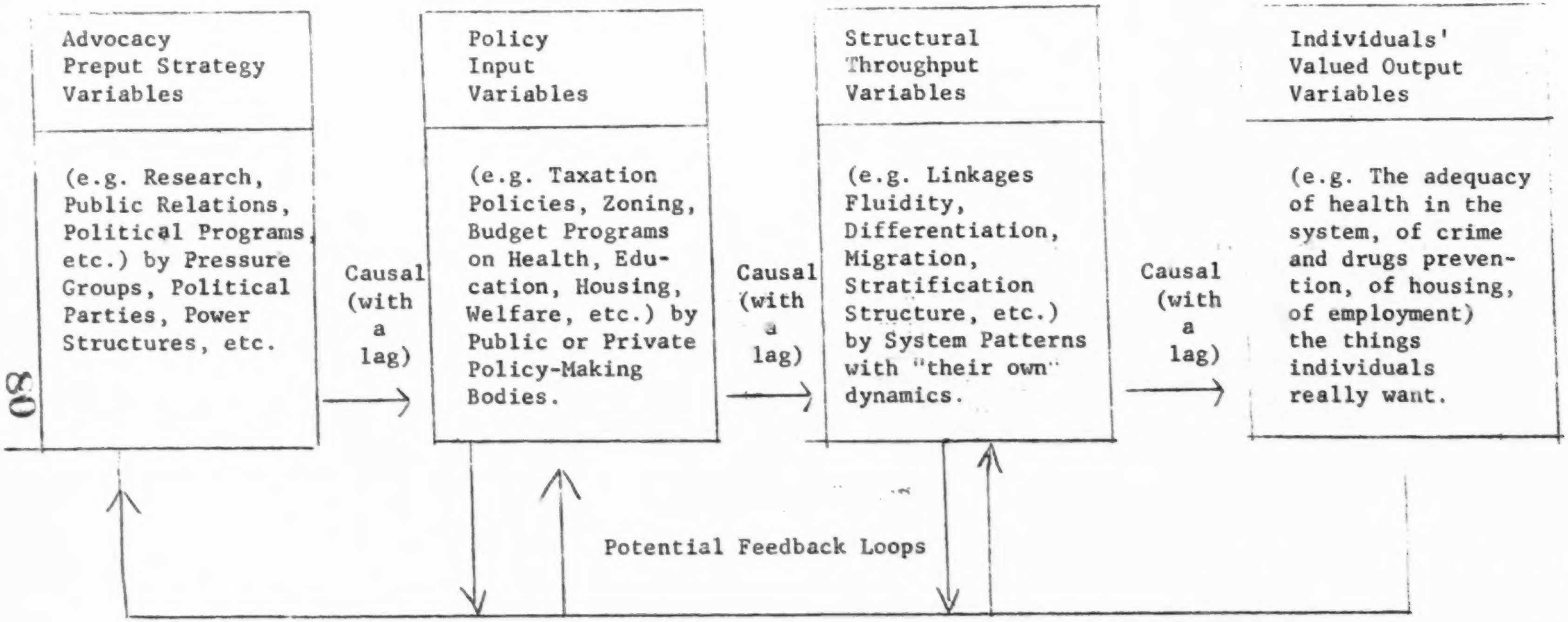
Figure Seven General Model of Community Macro-System Change*



Social Indicators

*The over-time, variously 1950-1960, and 1950-1960-1970, data, on which the correlation coefficients are based, are taken from two sources, and represent the admittedly biased highest correlations available to us. With the one exception below, the correlations are based on data from the 25 communities between 10,000 and 50,000 population in New York State. (Cf. Eberts, Eby and Kluess, "Community Structure and Poverty.") The correlation of fluidity and social indicator is based on data from a set of 364 communities in the Northeast, which form the basis of the USDA-CSRS Northeast Regional Project No. 47 (Revised). (Cf. Mattson, Schmidt, and Schector, "Pluralism and System Response").. The model will be tested more thoroughly on the latter sample in NE47 in the near future.

Figure Eight. Potential General Block Model of the Relation of Four Types of Variables in Social Accounting and Indication to the Research, Policy and Feedback Process.


Advocacy Preput Strategy Variables
(e.g. Research, Public Relations, Political Programs, etc.) by Pressure Groups, Political Parties, Power Structures, etc.
Causal (with a lag)
Policy Input Variables
(e.g. Taxation Policies, Zoning, Budget Programs on Health, Education, Housing, Welfare, etc.) by Public or Private Policy-Making Bodies.
Causal (with a lag)
Structural Throughput Variables
(e.g. Linkages Fluidity, Differentiation, Migration, Stratification Structure, etc.) by System Patterns with "their own" dynamics.
Causal (with a lag)
Individuals' Valued Output Variables
(e.g. The adequacy of health in the system, of crime and drugs prevention, of housing, of employment) the things individuals really want.
Potential Feedback Loops

types are labelled preput, input, throughput, and output variables. The output variables are the ones I believe most of us refer to when considering social indicators. These are the things which people value, things like the adequacy of health in the system, of crime and drug prevention, of adequate housing, of employment, and the like. What our model in Figure Seven shows is that these output variables are causally correlated with structural throughput variables, the ones which received major attention in this paper, namely linkage, fluidity, differentiation, stratification, and migration.

What the rest of the Figure Eight is assuming is that, although structural throughput variables interact largely due to forces exogenous to a community, they can be correlated and their effects can be ameliorated to some degree by policy input variables, which are the variables controlled by policymakers at the local community level. In the Figure One we referred to the four kinds of groups around which sociologists organize their thinking. One reason these four kinds of groups have become the major organizing concepts in sociology, I believe, is that each of them has a more or less clear and responsive set of role-positions in them which can set and vary the different kinds of policies necessary to deal with problems arising in and between groups. In communities, for example, city councils or board of representatives, or aldermen, or whatever they may be called, are legitimate, accountable, public policy-making bodies for communities. Moreover, these community policy-makers do have different kinds of policies at their disposal with which to respond to changes in the structures of their community, in order to be more likely to gain the output which individuals in their communities value. They can, as a matter of fact, change taxation policies, zoning policies, various kinds of budget programs with regard to health, education, housing, welfare, and so forth, and, in so doing, affect the level of output-welfare in their communities.

One of the problems which such official policy-makers have, however, is to know which policy input variables to change at any given time to affect structural throughput variables so that output variables, the things valued by individuals in their community systems, are actually changed to more beneficial levels. To produce such knowledge, it seems to me, is a very important role which must be filled by someone. Moreover, it seems to me that the land grant institutions in our society have an obligation to develop, utilize, and extend the research and information necessary to present to policy-making officials in our communities so that they will have greater capabilities in meeting the needs of their publics with appropriate and effective types of action. In my limited work with public officials, I find that most often it is not the case that they are men of ill-will. It is much more often the case that they simply do not know how to evaluate the information they are receiving on important problems in their communities, nor do they know what responses would be most effective in alleviating the most detrimental of these conditions. To repeat, to research the interrelation of these types of variables seems to me another important role which could be filled within the purview of the land grant institutions.

If land grant institutions do not fill this role, then public officials will continue to be under the influence of pressure groups, political parties, power structures, and so forth to implement policies which are basically most advantageous to limited population segments. It would not be my intention, however, simply to state that one set of policies "seem" to be better than another set of policies. It would be my intention to take the various kinds of policies suggested by the various kinds of pressure groups in the population, and to systematically research them so that we would know more adequately which policies are likely to have what manifest and what latent effects, and how these effects would also affect things valued by other population segments.

It is my contention, then, that the four kinds of variables specified in Figure Eight do interrelate with each other and should receive more attention from those of us connected to land grant institutions. It is certainly my intention to continue in this mode of research, and to encourage as many people as possible to participate in it. For, it is my belief that without massive attention to the interrelations of variables in these four sets of categories both in a causal and feedback manner, that the problems of American society and American communities will become more and more out of the control of the people whose job it is to be responsible for the wealth and well-being of their populations.

In summary, we have presented some basic variables on the structure of communities, have developed a theoretical model of how these variables seem to relate to each other over time, and have postulated a paradigm for connecting such dynamic analyses to policy and to social indicators of better quality of life in communities. In doing this, the paper intended to cross disciplinary lines, and be suggestive for further exploration rather than be definitive as it stands. I will know it has succeeded in its goals only if your papers and comments examine, modify, correct, and extend its underlying notions.

References

Hawley, Amos. "Community Power and Urban Renewal Success," American-Journal of Sociology, 68 (January, 1963), 422-431.

Kerr, Clark and Abraham Siegel. "Inter-Industry Propensity to Strike," in Kornhauser, Dubin, and Ross (editors), Industrial Conflict, New York: McGraw-Hill, 1954.

Vidich, Arthur and Joseph Bensman. Small Town in Mass Society, Garden City, New York: Doubleday-Anchor, 1958.

Wakeley, Ray, "Types of Rural and Urban Community Centers in Upstate New York," Ithaca, New York: Cornell University Agricultural Experiment Bulletin, No. 59, Department of Rural Sociology, October, 1961.

Lee, Douglas. "A Technique for Measuring Differentiation," Regional Development Studies, Cornell University, Department of Rural Sociology, Ithaca, New York, 1969.

Eberts, Paul R., John Eby and Pluma Kluess, "Community Structure and Poverty," Regional Development Studies, Cornell University, Department of Rural Sociology, 1969.

Mattson, Frank E., Fred E. Schmidt, and Carol Schechter, "Pluralism and System Response," Cornell Journal of Social Relations, 5, 1 (Spring, 1970), 93-101.

AN ACTION PROGRAM IN RURAL DEVELOPMENT:
The Role of the Land Grant Universities in Assisting with this Development

by David C. Ruesink[1]

Note: Major emphasis will be on what is possible rather than what is being done

I. Reasons for popularity of rural development programs
   A. Poverty
   B. Civil rights
   C. Reapportionment
   D. Action programs
      1. HUD
      2. HEW
      3. RAD
   E. Inflation
      1. Government spending
      2. Impact on people
   F. Service outside urban areas
      1. Demand for more
      2. Delivery from urban areas
   G. Rural-urban balance
   H. Population awareness
   I. Attitudinal changes
      1. On part of youth and women
      2. On part of minorities and welfare recipients

II. Definition of rural development
   A. Purpose of non-metropolitan development
      1. More employment
      2. Increased income
      3. Higher level of living
   B. Involvement of national issues
      1. Population distribution
      2. Human rights
      3. Environmental quality
      4. Services availability
   C. Responsibility of the community
      1. Decision-making about goals
      2. Action programs for enhancement of social and economic well-being
   D. Types of action programs
      1. Decided outside the community but affect the community
      2. Decided within the community

III. Ways decisions are made at the local level
   A. Default
   B. Panic

---

[1] Outline used for discussing Rural Development from the standpoint of an Extension Sociologist at the Joint Session of Agricultural Economics and Rural Sociology Section of the Southern Agricultural Workers Association Meeting at Jacksonville, Florida, February 1, 1971.

- C. Outside influence
- D. Scientific process
  - 1. Analyzation of situation
  - 2. Studying of issues
  - 3. Picking alternatives to goals
  - 4. Taking action

IV. Essential Functions for Public Affairs Education
- A. Consolidation of facts and principles relating to each problem
- B. Creation of viable alternatives
- C. Placement of problem in decision-making framework
- D. Diffusion of information
- E. Encouragement and organization of interaction

V. Unique aspects of rural action programs
- A. Controversy
- B. Wide range of expertese
- C. Functional requirements
  - 1. Research to generate missing information
  - 2. Education on effectiveness of information
  - 3. Action by local people

VI. Necessary ingredients of Development Specialists
- A. Development of working relationships with community leaders
- B. Knowledge of availability of objective information
- C. Knowledge of available resources
  - 1. Human
  - 2. Physical
  - 3. Other agencies
- D. Ability to utilize university resource people
- E. Ability to communicate through channels
  - 1. Community information needs to researchers
  - 2. Research results to community leaders
  - 3. Types of assistance available through many different agencies
- F. Wholistic approach in anticipation of consequences
- G. Understanding of national, regional, state, area growth patterns
- H. Ability to coordinate and facilitate cooperation between groups and agencie
- I. Ability to use Federal program funds as means, not end of goal accomplishme

VII. Questions raised by action strategy
- A. Reasons why
  - 1. To increase income (which types?)
  - 2. To improve decision-making (what decisions?)
  - 3. To increase employment (what kind?)
  - 4. To improve quality of life (whose juegment on quality?)
- B. When
  - 1. Availability of competency and appropriate information
  - 2. Indication of correlation between objectives established and objectives of larger segment of community
  - 3. Indication of causality between solution of minor problems and increase of other situational involvement
  - 4. Permission of objective handling without loss of respect
- C. Where
  - 1. At level of competency
  - 2. At request of clients
  - 3. In decision-making

- D. What
    - 1. Existing Extension organization if possible
    - 2. Other existing organizations if possible
    - 3. New organization creation if necessary

- VIII. Tools available for action
    - A. Social action model
        - 1. Create awareness
        - 2. Analyze alternative and consequences
        - 3. Legitimize and diffuse the program properly
        - 4. Develop goals
        - 5. Work out and carry out total plan
        - 6. Interpret implication for others
        - 7. Evaluate
            - a. What happened
                - 1) To increase income
                - 2) To increase employment
                - 3) To increase the quality of life
            - b. What would have happened without intervention
                - 1) Should we have intervened at all
                - 2) Did we intervene at the right time
                - 3) Did we intervene at the right place
                - 4) Did we intervene with the right people
    - B. Community surveys
    - C. Study groups of major issues
    - D. Action groups
    - E. Mass meetings
    - F. Training
    - G. Applied research
    - H. Outside resources

- IX. Role of Land Grant Universities
    - A. Translate educational activities into concrete results
    - B. Take wholistic view of development
    - C. Use educational delivery system for back-up support
    - D. Take research needs to attention of researchers
    - E. Take research results to attention of clients
    - F. Implement decisions through legal and administrative framework

The Development of Rural Sociology in the United States, with a Few Annotations on Its Development in the South

T. Lynn Smith
University of Florida

In addition to his own files and recollections, anyone attempting to review the origin, growth, and development of the scientific study of rural society in the United States has three major endeavors to depict the history of this science on which he may draw: The Growth of a Science: A Half-Century of Rural Sociological Research in the United States by Edmund de S. Brunner (1957)[1], Rural Sociology: A Trend Report and Bibliography by T. Lynn Smith (1957)[2], and Rural Sociology: Its Origin and Growth in the United States by Lowry Nelson (1969).[3] For rather obvious reasons, I draw heavily on the second of these.

For many years I was personally acquainted with practically everyone teaching or doing research in anything having to do with the sociology of rural life in the Southern Region, and this includes a dozen or so Negro sociologists, who, we should never forget, made fundamental contributions in the development of our science.[4] When I went to Louisiana State University in June 1931 as assistant professor of sociology, dividing my time between teaching in the College of Arts and Sciences and doing research in rural sociology at the Agricultural Experiment Station, I considered myself a general sociologist who was specializing to some extent in the sociology of rural life. To the best of my ability, from that time to the present I have endeavored to maintain that focus for my activities, although I realize, and get a certain satisfaction from the various "specialist" tabs--rural sociologist, urban sociologist, demographer, gerontologist, specialist on Latin American, specialist on Brazil, specialist on Colombia, specialist in social problems--that are put on me from time to time.

The Background

Rural sociology was an important and integral part of the whole when in the last two decades of the 19th century courses in sociology appeared almost simultaneously in scores of American colleges and universities. This was particularly true at the University of Chicago, where George E. Vincent and Charles R. Henderson laid much of the groundwork which led in 1892 to the organization of the department of sociology, and at Columbia University where Franklin H. Giddings, from his chair in the Faculty of Political Science, began interesting graduate students in the sociological study of rural communities.

Vincent's role seems to have been entirely overlooked by those, with the exception of Lowry Nelson, who have written on the development of rural sociology, perhaps because his writing in the field was cut short by his rapid advancement to the presidency of the University of Minnesota and then to that of the Rockefeller Foundation. Nevertheless, we can be certain that he was responsible for the prominence with which the study of rural social phenomena figures in An Introduction to the Study of Society, the first textbook in sociology to be published in the United States. Later on, when he was elected as president of the American Sociological Society (1916), he organized the annual meetings of that professional organization around the theme, "The Sociology of Rural Life," and took as the topic for his presidential address "Countryside and Nation." In 1917, too, when in the Rockefeller Foundation, he was one of a group of nine leaders who made themselves into "The Committee on Country Life" which was responsible for the organization of the American Country Life Association. Among other things, when he was President of the University of Minnesota he wrote the "Introduction" to the first rural sociology textbook, Gillette's Constructive Rural Sociology.

In considerable measure, though, the development of rural sociology, and perhaps of general sociology as well, arose out of the humanitarian philosophy which was a highly potent force in the United States during the closing decades of the 19th century. With the exhaustion of the supply of unoccupied new land, the passing of the frontier, and the growing pains of an industrial civilization, there arose an acute awareness that all was not well in the United States and particularly in rural America. The decline of the open country church and the depopulation of the rural portions of New England and other parts of the Northeast were among the trends of greatest importance in stimulating a humanitarian interest in rural life. In any case, such an interest had become widespread by about 1900, especially among the clergymen of the time, although no Southern ministers were prominent in the movement. An immediate effect of attitudes and activities of these clergymen was the establishment of courses on Rural Social Problems at the University of Chicago, the University of Michigan, Michigan State College, and the University of North Dakota. To the clergymen and other humanists of the time also must be credited the creation of the atmosphere that led President Theodore Roosevelt to appoint his famous Commission on Country Life in 1908. The hearings conducted, the meetings promoted, and the Report published by the Commission and the activities they produced were responsible in large measure for the development of rural sociological research and teaching in the United States.

A visit to this country by the noted Irish author and reformer Sir Horace Plunkett led Roosevelt to see the need and grasp the opportunity to appoint the Commission. Roosevelt prevailed upon the noted naturalist, Professor Liberty Hyde Bailey of Cornell University, to head the Commission, and Henry Wallace, Kenyon L. Butterfield, Gifford Pinchot, Walter H. Page of North Carolina, editor of The World's Work, Charles S. Barrett of Georgia, and William A. Beard to serve as members. Of the group, Butterfield, then President of the University of Massachusetts, definitely deserved to be classified as a rural sociologist. In his letter of appointment, the President stressed: "Agriculture is not the whole of country life. The great rural interests are human interests, and good crops are of little value to the farmer unless they open the door to a good kind of life on the farm."

The famous Report of the Country Life Commission, published in 1909, recommended three measures for promoting the desired objective: (1) "taking stock of country life....an exhaustive study or survey of all the conditions that surround the business of farming and the people who live in the country;" (2) nationalized extension work; and (3) "a campaign for rural progress.--We urge the holding of local, state and even national conferences on rural progress, designed to unite the interests of education, organization and religion into one forward movement for the rebuilding of country life." The nationalizing of agricultural extension work was the expansion over the entire country of work begun in the South by Seaman A. Knapp, a transplanted Midwesterner living and working in southwestern Louisiana.[5]

Many of the first steps in the development of rural sociology as a discipline were taken prior to 1920, but in general the years between 1909 and 1920 must be thought of as the period of the general social survey. In an attempt to follow through on the recommendations of the Commission on Country Life, during these years hundreds of rural social surveys were attempted by the thousands. In the survey movement Warren H. Wilson, a Ph.D. in sociology under Giddings at Columbia, was largely responsible, as director of Town and Country Surveys for the Presbyterian Church in the U.S.A., for the conduct and publication between 1912 and 1916 of 16 "Church and Community Surveys" covering 17 counties in 12 different states.[6] Another clergyman, Charles Otis Gill, of the Congregational Church, and his renowned cousin, Gifford Pinchot, made detailed studies of every church in two counties, one in the state of New York and the other in Vermont, and wrote a volume, The Country Church: Decline of Influence and Remedy,[7] to report their results.

In the years immediately following the close of the First World War, the Town and Country Division of the Interchurch World Movement undertook a study of rural life in the United States on a scale unparalleled before or since. The survey was organized in every state in the union, where it was in charge of a paid, full-time director. The first duty of each state director was to secure young ministers to become directors of the survey in each county and to get others to serve as assistants. When the Interchurch World Movement collapsed, the survey was operating in over 2,400 counties. The salvaging of some of the results of this endeavor was one of the big accomplishments of the Institute of Social and Religious Research which was organized in 1921.

In the early stages the entire set of surveys and rural life conferences came to be known as the Country Life Movement. However, the rise of the Conservation Movement, also largely due to the stimulation by the Report of the Country Life Commission, offered an alternative into which much of the energy was channeled; and the doctrine that the economic factor was all important, that if the farm family had an adequate income all other rural problems would take care of themselves, also entrapped many of those interested in rural betterment. But most of the leaders were not entirely satisfied that either of these was a complete answer to the problem of adequate rural society in the United States. As a result, in 1917 a small group of eight of them organized themselves into a Committee on Country Life. After a little more than a year of preparation, this group called a meeting of the leaders in country-life work throughout the nation and organized the National (later the American) Country Life Association, a body that, especially during the decade 1920-1930, was closely linked to the development of rural sociology.

Although the South and Southerners figured to some extent in the ferment of discontent over the plight of the rural church and other dissatisfactions that arose out of the growing pains of urbanization and industrialization of American society, relatively little of the background of the new science was set against the background of Southern society.

The Genesis of Rural Sociology

As indicated above, rural sociology was an important integral part of sociology in general when the new subject made its way into college and university curricula during the closing decades of the nineteenth century and the opening one of the twentieth. Prior to 1920, though, it is possible to single out several developments which can be considered as the first steps in the development of a genuine rural sociological literature. The first of these was the completion of three doctoral dissertations at Columbia University by James M. Williams, Warren H. Wilson, and Newel L. Sims, respectively. These were all under the direction of Franklin H. Giddings and involved the study of specific rural communities. Another development was the election of George H. Vincent as president of the American Sociological Society, and, as a consequence, the selection of "The Sociology of Rural Life" as the theme for the Eleventh Annual Meeting of the American Sociological Society held at Columbus, Ohio, Dec. 27-29, 1916. A third was the publication of the first rural sociology textbooks, John M. Gillette's Constructive Rural Sociology[8] in 1913 and Paul L. Vogt's Introduction to Rural Sociology[9] in 1917. Also deserving of mention are the facts that the first rural sociological paper to be presented before the American Sociological Society was one entitled "Rural Life and the Family," given by Kenyon L. Butterfield at the third annual meetings in 1908, and that in 1912 J. P. Lichtenberger of the University of Pennsylvania solicited and edited a set of papers for a special "Country Life" issue of the Annals.

But probably the most important step taken prior to 1920 was C. J. Galpin's study of The Social Anatomy of an Agricultural Community and its publication in 1915 as a Bulletin of the Wisconsin Agricultural Experiment Station. This study at once demonstrated that the American farmer was not a "man without a community," defined the rural community in definite and readily understandable terms, and described a method by which its limits could be delineated. Largely as a result of this research, Galpin was called to Washington in 1919, when his friend and superior at the University of Wisconsin, Dr. Henry C. Taylor, went to the U. S. Department of Agriculture to organize and head the Bureau of Agricultural Economics, to begin the work which led to the establishment of the Division of Farm Population and Rural Life.

A Decade of Progress, 1920-1929

The decade 1920-1929 was the one in which substantial form was given to the emerging field of rural sociology. Galpin from his position as Chief of the Division of Farm Population and Rural Life adopted the policy of using a major portion of his small budget for cooperative projects throughout the nation with sociologists who were interested in rural life. The University of Wisconsin and Cornell University were the chief beneficiaries of this policy, but sociologists at other state institutions, at private universities such as Tulane[10] and Brigham Young[11], and at least one college for Negroes[12], also received some assistance. The studies completed under these arrangements form a very substantial part of the publications up until about 1932. Also of importance was Galpin's demonstration of the need for and interest in data concerning the farm population of the United States, the step which led in 1930 to the use of the rural-farm category as a basic component of the tabulations of U. S. Population Census data.

At this point it seems well to insert a few facts about the development of rural sociology in Louisiana, which apparently began with the teaching of courses in a department of economics and sociology at LSU. Colonel William Prescott began teaching sociology there about 1900 using Gidding's Principles as a text. As early as 1914 W. O. Scroggs was offering a course entitled Applied Sociology in which the problems of rural life received a major part of the attention. Immediately after the First World War a course in Rural Social Problems was introduced, taught at first by T. N. Farris, and from the summer of 1922 on by Fred C. Frey and Roy L. Thompson. Frey and Thompson were the ones who finally persuaded those in charge of the Louisiana Agricultural Experiment Station to begin research work in rural sociology in 1931, and I was the one to begin that work, with my first study being the one that resulted in the monograph or bulletin entitled Farm Trade Centers in Louisiana, 1901-1931 (January 1933).

The 1920's also were years in which significant beginnings were made in some of the other states, and especially in North Carolina where both Carl C. Taylor and Carle C. Zimmerman were active.[13] The work of Edmund deS. Brunner during this decade also is deserving of special mention. He was largely responsible for salvaging parts of the surveys undertaken by the Interchurch World Movement and for organizing the supplementary work needed to make those materials of the most significance. Through the organization of the Institute of Social and Religious Research in New York City of which he became director, it was assured that his major efforts would be devoted to rural sociology, and he gained the organization needed to plan, finance, and conduct the original survey of 140 agricultural villages. As the decade closed he had already developed most of the plans for the 1930 resurvey of the same communities, which, combined with the second resurvey in 1936, completed the most comprehensive study of rural social change that has been done.[14]

The passage of the Purnell Act by the U. S. Congress, a measure of paramount importance in the history of rural sociological research, came in 1925. There is nothing in the Act which specificies that Purnell funds shall be used by the Agricultural Experiment Stations for the support of rural sociological research. It is merely permissive. When in the early 1920's the need became glowingly apparent for research in the various states on the social and economic aspects of agriculture and rural life, the Agricultural Experiment Stations were in poor financial positions to introduce or to expand the work they were already doing in the fields of rural sociology, agricultural economics, marketing, and home economics. The funds with which they operated came in large part from the federal government, but the acts under which they were appropriated had not specified that they might be used for socio-economic projects, and in any case, they were already committed to the continuing work on the technical aspects of agriculture on which the members of the Station staffs were engaged. Under these circumstances, the representatives of the agricultural colleges and experiment stations presented the plea to Congress that they wanted to work in the social fields but that they must have additional federal funds in order to carry on the needed research in rural sociology and the other fields mentioned above. Through the Purnell Act the Congress attempted to meet their requests.

The provisions of the Purnell Act, through which each state receives $50,000 annually for research purposes, made it possible for any director of an agricultural experiment station who desired to abide by the spirit as well as the letter of the law to use substantial sums for the support of rural sociological research in his state. As a result, many of the stations have long maintained' rural sociologists on their staffs and have developed substantial programs of research in the field.

The passage of the Purnell Act, however, did not immediately create a higher competence on the part of those already engaged in rural sociological research nor of those who took the new positions that were created. In some states the development of rural sociology received a decided set-back because projects were undertaken by insufficiently trained persons. It was at this juncture that the Social Science Research Council stepped in, in 1927, with a program of fellowships specifically designed to train rural sociologists and agricultural economists for the positions in the agricultural experiment stations.

Another significant development during this short period of rapid progress was the beginning of the work in levels and standards of living. Pioneers in this area were E. L. Kirkpatrick, first at Cornell University and later in the Division of Farm Population and Rural Life in the U. S. Department of Agriculture, and Carle C. Zimmerman at the University of Minnesota.

Finally, the decade 1920-1929 was the one in which efforts at synthesis in the field got underway in earnest. This difficult work began on a small scale in the preparation of Gillete's new book on Rural Sociology. It was advanced considerably when Taylor published in 1926 the first edition of his Rural Sociology in 1928. However, the culmination came in 1929 with the publication of The Principles of Rural-Urban Sociology by Sorokin, Zimmerman, and Galpin. The work of preparing these books brought to bear upon the field of rural sociology in a long concerted effort the ingenuity of Sorokin and his vast knowledge of European society and sociology, and Zimmerman's genius, determination, drive and mastery of developments on the American scene. The result was the finest synthesis of the field of rural sociology achieved to date.

The Period of Maturation, 1930-1945

The years 1930 to about 1945 may be characterized as the ones in which the discipline of rural sociology came of age. They also are ones in which the leadership and the quantity and quality of the work in rural sociology in the South did not suffer in comparison with those anywhere else in the nation. During the first few years of this period, the difficult work of synthesis was the outstanding feature. Brunner and his associates resurveyed 140 agricultural villages and the study by Brunner and John H. Kolb was expanded into Rural Social Trends (1933).[15] In this form the study was one of the monographs prepared as a basis for the report of the Committee on Recent Social Trends appointed by President Herbert Hoover. A considerably revised edition of Taylor's Rural Sociology appeared the same year, a reworked version of Sim's Elements of Rural Sociology the next, and Kolb and Brunner's A Study of Rural Society[16] in 1935. Then followed a lapse of five years, during which an expanding corps of rural sociologists devoted themselves to intensive research on an unprecedented scale, before the results of other sustained efforts at synthesis appeared in print. Then, in 1940, Paul H. Landis' Rural Life in Process[17] and T. Lynn Smith's The Sociology of Rural Life[18] presented the results of two new and somewhat different attempts at sketching the over-all plan of the discipline. Two years later Rural Sociology and Rural Social Organization[19] set forth the results of Dwight Sanderson's lifetime of effort in the general work of synthesis. Within special fields, during this period Sanderson's The Rural Community (1932),[20] Zimmerman's Consumption and Standards of Living (1936),[21] and Sanderson and Polson's Rural Community Organization (1939)[22] were significant accomplishments in the work of synthesis.

The outstanding feature of the period under consideration, however, at least in immediate effects, was the activities of rural sociologists in connection with President Franklin Delano Roosevelt's "New Deal." Harry Hopkins had hardly set in motion (1933) the efforts of the Federal Emergency Relief Administration (later the Works Progress Administration) to pour relief funds into the states, before members of Congress and others began asking sharp questions as to exactly who was receiving the funds and what relation, if any, there was between need and aid. Hastily E. D. Tetreau and a few other rural sociologists were called to Washington and asked to help supply the answers. The cooperation of various rural sociologists at the State Agricultural Experiment Stations was asked for and promised. But it was not easy to organize the necessary surveys on the scale required, and considerable confusion resulted. Finally, Dwight Sanderson was asked to go to Washington to take over as "Coordinator of Rural Research" for the federal agency, and to perfect an organization that could with dispatch secure and analyze the necessary facts. Sanderson wisely chose to depend chiefly upon rural sociologists located in the various states and, where possible, upon the members of the staffs of the agricultural experiment Stations. In about one-half of the states a rural sociologist was given the title of State Director of Rural Research and a per diem allowance for travel. Relief funds were authorized for the appointment of an assistant director in each case and for the employment of field enumerators and clerical assistants. Then these state organizations undertook two types of research activities: (1) execution in the selected areas of the plans fashioned at the national level and (2) the conduct of approved and relevant projects which were locally designed. Literally hundreds of publications (articles, experiment station bulletins, etc.) resulted from these efforts, of which those of nationwide scope published as Research Monographs by the Works Progress Administration were the most important. Many of the state studies, though, produced results of great significance at the time. All in all, this activity in connection with the relief program was the dominant feature of rural sociology in the years 1933-1936. At Mississippi State University and some of the other schools, serious work in rural sociology pretty well dates from this period.

In the meanwhile, some rural sociologists, Carl C. Taylor in particular, had been intensively engaged in the work of the Subsistence Homesteads Division of the Interior Department. Eventually, Taylor was located in the United States Department of Agriculture as director of the Division of Farm Population and Rural Life and director of the Division of Social Research of the Resettlement Administration (Later the Farm Security Administration). This was accompanied by a greatly expanded program of rural sociological research on the part of the federal government, with part of its personnel stationed in various regional and state offices. The importance of Taylor's position as director of research for the Farm Security Administration declined, as did the agency itself, but the work of the Division of Farm Population and Rural Life became by far the most dominant element in the field of rural sociological research. Noteworthy accomplishments include the series of Social Research Reports giving the results of research by Taylor, Charles P. Loomis, Edgar A. Schuler, Olen E. Leonard, and others; and the six monographs in the Culture of a Contemporary Rural Community series.

Two other closely related developments during the period that greatly influenced the growth and development of rural sociology as a scientific discipline were the founding of the journal Rural Sociology and the organization of the Rural Sociological Society. Even before 1920 a section on rural sociology had been established within the American Sociological Society. Originally, this form of organization was of benefit to the Society and to rural sociology alike, but gradually complications arose. The basis for these was the Society's highly meritorious rule that no member should present more than one paper at the annual meetings. But the rural sociology section was organized within the general body and was charging extra dues for membership in the section. Many professional people wanted to be members of the section but did not wish to join the Society. On the other hand, most of the other members of the Society were adamant in maintaining the position that rural sociologists should be governed by exactly the same rules as all other members. The matter came to a head at the annual meetings in 1935, when, as usual, the discussion of the matter occupied most of the time at the business meetings of the Section on Rural Sociology. The acute need for expanded and improved facilities for publishing the papers presented at the meetings of the Section was commented upon by various members.

After vigorous debate, a committee was appointed to create channels for space for rural sociology articles in some standard publication. This committee agreed to publish a quarterly.[23] The first Board of Editors consisted of Lowry Nelson, Chairman, John H. Kolb, C. E. Lively, Dwight Sanderson, and Carle C. Zimmerman, with T. Lynn Smith as Managing Editor.

Following disposal of publication problems in 1935, the incoming exeuctive committee was instructed to study the possibilities of forming an autonomous organization of the Rural Sociology Section. The incoming officers were authorized to call a meeting for rural sociologists in addition to the officia meetings of the American Sociological Society. The affairs of the Rural Section were brought to an end, and the group proceeded to organize the Rural Sociological Society of America[24] (later the Rural Sociological Society). The officers elected to serve the first year were as follows: Dwight Sanderson, president; John H. Kolb, vice-president; T. Lynn Smith, secretary-treasurer; and C. E. Lively and Carl C. Taylor, members of the executive committee.

A final development of considerable significance as rural sociology came of age in the period 1930-1945 was the substantial beginnings of professional work abroad on the part of some of the more experienced rural sociologists. This type of activity became a principal endeavor on the part of many of the outstanding men in the field.

Developments Since 1946

The happenings in rural sociology since the close of the Second World War I shall mention only briefly. I will, though, offer a few of my own ideas about some of the more important of the recent trends and developments.

Probably the most important over-all development has been the concentration of work in rural sociology at the agricultural colleges and especially in the agricultural experiment stations. Before passage of the Purnell Act in 1925, relatively little rural sociological research was done at the agricultural experiment stations; and it is probable that the courses offered in the agricultural colleges ran a very poor second to those in church-related and private institutions of higher learning. Even after the Purnell Act was passed, a full decade had to pass before rural sociological research got well established at some of the institutions that presently have the strongest programs.

Since 1946, however, it has been very different. The bulletins, circulars, memoirs, and other publications issued by the agricultural experiment stations constitute the great bulk of rural sociological literature. The articles prepared for Rural Sociology are, for the most part, written by the personnel at the colleges and universities in which the agricultural experiment stations are located. Also in very large measure the rural sociologists who have pioneered the work in other countries are those who are, or were, at the time they began such activities, associated with the agricultural experiment stations. Indeed, by the end of the year 1956 only at Columbia University, the University of Florida, and Harvard University were any considerable programs of rural sociological research and teaching being carried on entirely independent of work at the agricultural experiment stations.

Even the research activities of various federal agencies withered on the vine following 1945, so that in recent years the accomplishments of the rural sociological personnel remaining in the U. S. Department of Agriculture make a poor showing alongside the achievements between 1935 and 1945. This is true despite a high quality of work on the part of those now employed by the federal agencies. The dismemberment of the Bureau of Agricultural Economics and the severe budgetary curtailment of the lines of activity formerly embodied in the Division of Farm Population and Rural Life were, of course, the changes bringing about the decline of rural sociological work in the federal departments. In 1971, though, the U.S.D.A. bears no resemblance whatsoever to the Department of Country Life envisioned by Theodore Roosevelt when he was President of the United States. With the federal agencies largely out of the rural sociological research picture, the concentration of the activities at the agricultural experiment stations became even more marked.

The rural church, the rural home and family, and standards and levels of living appear to be the areas of research which have been most largely neglected in recent years. Since 1936 no comprehensive sociological study of the rural church situation has been undertaken. Furthermore, on the state level nearly all of the most adequate studies were undertaken prior to 1950. Studies of the rural family in recent decades have been very few.

Similar is the situation with respect to levels and standards of living. Ever since an agreement was reached between the various agencies in Washington that the Bureau of Home Economics and not the Bureau of Agricultural Economics should do the budgetary research on farm-family living, this part of rural sociology has suffered sadly. The prohibition in Washington has carried over into the states. However, through the construction of scales and indexes for measuring variations in levels and standards, rural sociologists seem to be developing approaches that may produce significant knowledge and understanding in this important area.

Studies of rural social organization, population, social stratification, man-land relationships, social participation, and social change seem to be receiving about as much attention as they did prior to 1946, although several of them are badly in need of comprehensive and systematic study.

At least five relatively new fields of study were developed rapidly by rural sociologists in the years following the close of the Second World War, and the men working at Southern universities have been responsible for much of the most significant results. These are health and medical services, the diffusion of agricultural practices, aging and retirement, suburbanization, and rural society in other lands. The impetus in these fields seems likely to continue for some time to come, and these lines of endeavor may be expected to expand in the years immediately ahead.

In conclusion, it seems necessary to add a few words about the present need for thorough-going endeavors at synthesis in the field of rural sociology. From

1930 on, analysis has greatly outstripped synthesis in the discipline. Since the third volume of *A Systematic Source Book in Rural Sociology* by Sorokin, Zimmerman, and Galpin appeared in 1932, the results of hundreds of research endeavors have appeared in print. But attempts to systematize and organize the items of knowledge contained therein have been very modest. The most substantial contributions have been made in a few of the texts, of which Sanderson's *Rural Sociology and Rural Social Organization*, Nelson's *Rural Sociology*,[24] Carl C. Taylor and Associates' *Rural Life in the United States*,[25] Charles P. Loomis and A. L. Beegle's *Rural Social Systems*,[26] Alvin L. Bertrand and Associates' *Rural Sociology*,[27] and T. Lynn Smith and Paul E. Zopf, Jr.'s *Principles of Inductive Rural Sociology*[28] deserve special mention. But none of these, or all of them taken together, is adequate. An extraordinary effort to systematize the results of the rural sociological research in all parts of the world is the greatest of the discipline as we move through the decade of the 1970's. Only then can the outstanding scientific work that has been done by the members of this group of rural sociologists in the Southern Agricultural Workers, that of their fellows throughout the South, and that of American rural sociologists generally become somewhat more readily available to the hundreds of hard-pressed governments, agencies, and private organizations that are bewildered by the problems of societies in which the forces making for undirected, uncontrolled change are greatly in the ascendancy over those making for stability and strong institutions.

Footnotes

1. New York: Harper & Brothers

2. Published as Current Sociology--La Sociologie Contemporaine, Vol. VI, No. 1 by UNESCO, Paris.

3. Minneapolis: University of Minnesota Press.

4. A few of the more noted of these are Charles S. Johnson, whose highly productive career was at Fisk University; E. Franklin Frazer of Howard University, Mozelle Hille and W. E. B. du Bois with whom I worked while they were at Atlanta University, and Charles G. Gomillion of Tuskegee Institute.

5. For a magnificant study of Knapp's life and work, see Joseph Cannon Bailey, Seaman A. Knapp, New York: Columbia University Press, 1945.

6. Five of these are included in the bibliography included in Smith, op.cit. p.26

7. New York: The MacMillan Company, 1913.

8. New York: The MacMillan Company. It is fitting and significant that George E. Vincent, then President of the University of Minnesota wrote the perspicuous two-page introduction to this, the first rural sociology text.

9. New York: D. Appleton and Company.

10. The work at Tulane was done by Augustus W. Hayes, whose study of seven Louisiana communities was published under the title Some Factors in Town and Country Relationships, New Orleans: Tulane University, 1922.

11. The studies at Brigham Young were by Lowry Nelson and are as follows: A Social Survey of Escalante, Utah, Provo: Brigham Young University, 1925; The Utah Farm Village of Ephraim, Provo: Brigham Young University, 1928; and Some Social and Economic Features of American Fork, Utah, Provo: Brigham Young University, 1933. I assisted with the statistical work on the study of Ephrain and did all of the interviewing in American Fork.

12. The reference here is to A. B. Doggett, Jr., Three Negro Communities in Tidewater Virginia, Hampton: Hampton Normal and Agricultural Institute Bulletin, Vol. 19, No. 4, 1923.

13. See especially Carle C. Zimmerman and Carl C. Taylor, Rural Organization: A Study of Primary Groups in Wake County, N. C., Raleigh: North Carolina Agricultural Experiment Station Bulletin, No. 245, 1922; and Carl C. Taylor, Rural Sociology, New York: Harper & Brothers, 1926. For information about some of the studies published in other Southern states during this period, see Smith, op. cit., pp. 29-39.

14. Annotations relating to Brunner's work, which it may be said greatly underemphasized the importance of the South (where over half of the rural and the rural-farm populations lived at the time he conducted his three nationwide surveys) are given in Smith, op. cit., pp. 33, 34, 36, and 39.

15. New York: McGraw-Hill Book Company, 1933.

16. Boston: Houghton Mifflin Company.

17. New York: McGraw-Hill Book Company.

18. New York: Harper & Brothers, 1940.

19. New York: John Wiley & Sons.

20. Boston: Ginn & Company.

21. New York: D. Van Nostrand and Company.

22. New York: John Wiley & Sons.

23. See the "Statement of the Editorial Board" in Rural Sociology, Vol. I, No. 1 (March, 1936), pp. 5-7.

24. New York: American Book Company, 1948.

25. New York: Alfred A. Knopf, Inc., 1949.

26. New York: Prentice-Hall, Inc., 1950.

27. New York: McGraw-Hill Book Company, 1958.

28. Philadelphia: F. A. Davis Company, 1970.

SOME FACTORS ASSOCIATED WITH RURAL TO URBAN MIGRATION

Lawrence W. Drabick
North Carolina State University

A variety of sources, ranging from the Sunday supplements to publications of the United States Bureau of the Census, bring to our attention the magnitude of movements of population from the rural to the urban centers of the United States.

"Such movements . . . involve transfer to urban centres of residents from areas far removed in culture and habits of life, if not in distance, from the city. A simple country existence, often with few social contacts, small responsibility to neighbors, and meagre educational facilities, would seem to form a highly unsuitable background to city life. Under these conditions, may not the migrant's process of adjustment to the new surroundings present many serious problems? The . . . isolation of homes left behind . . . peculiarly aggravates the problem of alienation, an isolation which, together with small resources, restricts economic development and preserves an archaic culture. In consequence, the gap is wide between the newcomer's cast of mind and what he encounters in the city. It is the existence and bridging of such a gap which forms the essence of that social adjustment which every rural emigrant must face."

The migrant "goes out from the independent, if primitive, life to enter one which must be largely dominated for him by routine. He finds himself in a community swayed by a long-established . . . culture in most respects out of sympathy with his own. The majority arrive with no industrial experience whatever and can do little better than find some low-paid employment for the unskilled in the manufacturing or mechanical industries."

"How then, it must be asked, will migrants . . . fare when they enter the fully organized and established industrial life of the city . . . a way of life for which they are totally unprepared."

Most of what has been said above seems completely timely and descriptive of what is happening and the questions which might be posed in the field of rural to urban migration today. On the other hand, most of it was written some 34 years ago.[1] /Plus c,a change (et) plus c'est la méme chose./ The more things change, the more they are the same. While the quotes cited pertain directly to a specific migrant group, we believe them to have a generalizability which makes them pertinent in a wider sense to the difficulties which confront the migrant of the present time in his move from the rural to an urban environment. They contain the essence of concern which motivated a study of migrants in North Carolina.

---

[1] Leybourne, Grace G., "Urban Adjustments of Migrants from the Southern Appalachian Plateaus," Social Forces, 16 (December 1937) 238-246.

THE NORTH CAROLINA STUDY

The focus of the study resided in the adjustments with which the migrants were faced as a consequence of the change in their environment. Specifically, we wished to obtain insight into (1) the extent to which migrants (a) have and (b) are aware of adjustment problems; (2) the nature of the adjustment difficulties which were perceived; (3) the origins of the problems, i.e., whether they appeared to be consequences of attributes of the migrants, characteristic behaviors of their new neighbors, or features of the institutional structure with which they must deal; (4) differences in the nature and severity of adjustment which related to variant position in the family structure; (5) the extent to which adjustment problems contribute to the dysfunctions of migrants; (6) the extent to which migrants' dissatisfactions with their new lives seemed to derive from problems of adjustment.

The concept of adjustment is not clearly defined. A succinct statement appears to be lacking in the current literature. Further, its study poses a problem in that the kind and degree of adjustment achieved by an individual usually are dependent upon a multiplicity of personal and environmental factors. Human behavior is so complex that it is almost impossible to assert that any particular combination of factors will have a specific effect upon an individual's responses. Additionally, adjustment is a consequence of perception on the part of the individual. An environmental factor which is a cause of severe stress for one person may have little or no effect upon another.

As used in this study, adjustment implies that the most desirable state is one in which the individual is satisfied with all aspects of his environment: one in which he has obtained a level of satisfaction which he would be pleased to consider relatively permanent. Several areas of social interaction seem basic to achievement of such a state. They include (1) attainment of a job for which the individual is prepared and competent and which confers upon him a satisfactory degree of status and financial security, (2) the presence of a set of norms with which the migrant is familiar and which are sufficiently congenial as to cause no psychological nor social stress in their acceptance, (3) a confidence in neighbors and friends which will enable migrants to take an active part in the social life of the community, and (4) the presence of institutional structures and representatives which make conscious efforts to give memberships and/or counsel to the migrant.

There is some evidence to suggest that these factors do not operate independently. Robinson, et al., determined that the adjustment which a worker makes in his community will have an important influence upon his effectiveness and success in a new employment situation.[2]

---

[2] Robinson, Howard F., Benjamin W. Harris, and Paul R. Johnson, Employment Adjustments in Two Growing Labor Markets, Economics Research Report No. 7, Department of Economics, North Carolina State University at Raleigh, December 1968.

One could also assume that other influences would be determinative of the extent to which the migrant considers himself adjusted. Among these would be the presence in the new setting of friends and relatives from the old milieu, the extent to which the premigration environment shared similarities with the postmigration environment, and the length of time the migrant had been in his new environment. Beers and Heflin have provided support for the latter consideration.[3]

The Theoretical Orientation

The symbolic interactionist position which guided this research is based upon Rose.[4] It assumes that human behavior is characterized by interaction among persons in terms of sets of perceived expectations that these persons to some degree share with one another.

Individuals expect that others will behave in a certain way given a specific set of conditions; but unless a person "knows" the social meanings of values (collectively constituting the culture) of other persons, he is not able to predict their behavior and adjust his behavior to theirs. The expectations consist of and/or refer to: (1) meaning or definitions of objects (including persons), and their use or "purpose"; and (2) values, or specifications as to how one should or must act toward an object. Social disorganization exists to the degree that a significant proportion of meanings and values are not held in common.

According to this theory, the newcomers to an urban community will be socially disorganized to the degree that their meanings and values differ from those prevalent in the community. Because the migrants come from diverse areas and backgrounds their characteristics are not uniform. Many migrants are seriously disadvantaged socially, economically, and educationally.

There is evidence to support a belief that faulty education plays an important part in the adjustment problems of migrants. But this is only part of the picture, because for many adjustment difficulties arise partly from the lack of community resources to aid the migrant and from the inability of the migrant to cope with the social and economic conditions of the urban community. They frequently lack the social and personal skills necessary to earn an adequate living and to develop a meaningful life in the city.

There are two factors so fundamentally a part of studies of migration that it seems necessary to indicate omission of their consideration in this study. First, we made no determined, theoretically based attempt to ascertain the reasons why the migrant had decided to leave his community of origin. It is quite likely that such reasons might be associated with his problems of adjustment, but our concern was with his present condition. Second, we were not concerned with the impact of the migrants upon the communities into which they moved, although this factor might indirectly be reflected in the nature and intensity of problems of adjustments encountered by the migrants. As Leybourne notes; "The urban adjustment of migrants . . . meets obstacles raised by the misapprehensions in the minds of . . . residents, in addition to those springing from habits of life belonging to (their places of origin)."

---

[3] Beers, Howard, and Catherine Heflin, Rural People in the City, Kentucky Agricultural Experiment Station Bulletin No. 478, July 1945.

[4] Rose, Arnold M., Theory and Method in the Social Sciences, Minneapolis: University of Minnesota Press, 1954.

The Procedures of the Study

Raleigh served as the locus of the study, a decision determined by its central location in the state wherein it draws migrants from much of North Carolina. Raleigh is further attractive to migrants from all parts of the state because it is the capital city and because of major increments in the economic structure of the area.

We interviewed only migrants who had been in Raleigh not less than six nor more than eighteen months. This time span should have provided opportunity to become aware of adjustment difficulties but insufficient time to either rectify or forget them. On the assumption that the meaningful bulk of migrants would be in the child-bearing age, we solicited the names of new children attending three high schools, two junior high schools, and three elementary schools in the city. This group became the basis for a purposive-random selection of 12 families meeting our time parameters: seven white and five black. Four of these families were headed by males, eight by females. Two males had less than high school education, while two had attended high school. Three females had not attended high school, while five had. None had gone to college. Both males and females were evenly divided between the 21-35 and 36-55 age groups.

An interview guide was developed to obtain base data for the study. Within the framework of necessary information, the interviewer was given wide latitude to conduct an in-depth study. Repeated calls, as many as half a dozen, were made to the same family. A black interviewer contacted the black families. In meetings with the white families, the black interviewer was initially accompanied by a white colleague who acted the part of being in charge of the procedure. Eventually the black interviewer was able to conduct the interviewing of these white families with no apparent negative effect. The means of obtaining the data, together with the limited sample, precluded statistical analysis of the findings.

Findings

The younger the adult respondents, the better adjusted they appeared to be. Older migrants expressed more dissatisfaction with their present environment. Families with young children seemed to be the locus of more adjustment difficulties than those with teen-age children.

The presence of a male head did not appear to be associated with the nature and severity of adjustment. Families with female heads seemed to be coping as successfully, although both had problems.

As the educational attainment increased, the respondents were able to better and to more spontaneously articulate their adjustment difficulties. Respondents with an eighth grade education or less initially expressed themselves as having no problems; alternatively, they refused to discuss the subject with the interviewer. After several visits, these respondents did state that they were having problems of adjustment. It is believed that this inability to perceive and communicate problems of adjustment in itself constitutes a serious difficulty of adjustment. Failure to recognize maladjustments, or failure to adjust, would prevent these individuals from seeking assistance which could make their integration into the new community more pleasing and rewarding. On the other hand, it is possible that migrants who professed to have no problems of adjustment may have been more aware of such problems in a latent sense. For, given opportunity to discuss the issue with the study representative after they had come to know and accept him as a neutral person, they did divulge difficulties of adjustment to their new environments.

Finding adequate housing was a major problem for many migrants. They spoke of dissatisfaction with their living conditions, the amount of rent paid for substandard housing, absentee landlords, and their inability to find adequate housing. Where adequate housing was available, the rents were greater than the migrants could afford.

Respondents with the necessary financial resources did not consider attainment of housing *per se* to be their primary problem. They were more concerned with the nature of life in the community, and they expressed a strong dislike of having to live in close proximity with their neighbors.

Respondents with more education and better paying jobs depended less on friends and relatives for psychic and moral support. These families did not remain in isolation in the new community as long as did those with less education and income. Further, they expressed general satisfaction with the new community. Also, they tended to make frequent visits outside of the new community, whereas their opposites had their major contact within the immediate community.

Occupations of the migrants were varied and included the following: laundry worker, domestic worker, salesman, mechanic, babysitter, waitress, printer, painter, school teacher, and secretary. Unskilled workers tended to be dissatisfied with their occupations, but they stated an acceptance of their mode of work as a matter of survival. Migrants who originally had been farmers appeared less satisfied with their new jobs in comparison with those who had been otherwise employed. Although many of the migrants expressed great dissatisfaction with their present status in the urban community, none indicated a desire to return to the farm.

Low salaries were the source of the most frequently expressed dissatisfaction with present employment. Other typical responses were too many hours and poor working conditions. Females were less likely to exhibit great dissatisfaction with present occupations than were males.

Families low in socioeconomic status depended more upon their families and friends than on other sources for various forms of material assistance. None of these families had received help from any public agency. In fact, respondents expressed a fear of public assistance agencies, even when circumstances warranted a migrant legitimately seeking aid. Some respondents stated that public agencies discouraged the recent migrant from applying for assistance. They preferred to remain anonymous and unaided rather than risk embarrassment by agency personnel. One should not conclude that agency personnel necessarily are oblivious or inhumane. Leybourne states that ". . . social workers confess that strong coercion is frequently necessary in persuading these migrants to take advantage of available benefits." A value conflict apparently is in operation. It should also be stated parenthetically that migrants' knowledge of the range of services and the specific agencies providing them was minimal and largely based on hearsay.

Conclusions

1. The motivation for coming to the urban community varied according to socioeconomic status. The lower-class migrant had tended to come seeking better employment. The upper-class migrant came as a consequence of job transfers or to enroll their children in a better school.

2. The degree and length of isolation in the community of destination varied by socioeconomic status and by pre-existent family and friendship patterns. Migrants with no primary contact remained in isolation longer than those with existent contacts in the urban community. Lower-class migrants commuted outside the immediate community infrequently other than to go to work. Those higher on the socioeconomic scale had social, business, and recreational contacts outside their immediate community.

3. Migration did not appear to have any meaningful effect upon nuclear family relations, but there seemed to be a definite weakening effect upon extended family relations.

4. Education is a major factor associated with adjustment. For those with less education there is evidence of psychological and social

disorientation and of alienation from the total community. Those with higher education did not appear to have this problem.

5. When lower-class migrants did have primary contact in the community through friends and family, they tended to rely upon them, almost exclusively, for a longer period of time than did migrants without such associations. This tendency seemed also to be associated with educational level, permitting the better educated to break the dependency bond more readily.

6. A most significant conclusion drawn from this study is the inability of lower-class migrants to articulate their problems of adjustment. These migrants are apt initially to deny that they are having problems of adjustment. When pressed, they expressed both a knowledge of adjustment difficulties and a lack of familiarity with the formal means with which to cope with them. Further, they evidenced a fear, perhaps based upon social incompetence, to contact assistance agencies. Once rapport had been established between respondent and interviewer, the migrant could talk at length about his problems. On several occasions they requested the interviewer to intercede for them with public and private agencies in an effort to overcome problems they were having.

These migrants simply do not have the educational or experiential backgrounds to enable them to compete successfully in the urban environment. Neither do they have the skills to participate contributively and competitively in the labor market. This means that they are functionally helpless in some major areas of operation within the urban environment. They desperately need the assistance of public agencies which they are hesitant or unable to contact and from whom they are largely hidden.

SOME FACTORS ASSOCIATED WITH RURAL TO URBAN MIGRATION

Lawrence W. Drabick
North Carolina State University

A variety of sources, ranging from the Sunday supplements to publications of the United States Bureau of the Census, bring to our attention the magnitude of movements of population from the rural to the urban centers of the United States.

"Such movements . . . involve transfer to urban centres of residents from areas far removed in culture and habits of life, if not in distance, from the city. A simple country existence, often with few social contacts, small responsibility to neighbors, and meagre educational facilities, would seem to form a highly unsuitable background to city life. Under these conditions, may not the migrant's process of adjustment to the new surroundings present many serious problems? The . . . isolation of homes left behind . . . peculiarly aggravates the problem of alienation, an isolation which, together with small resources, restricts economic development and preserves an archaic culture. In consequence, the gap is wide between the newcomer's cast of mind and what he encounters in the city. It is the existence and bridging of such a gap which forms the essence of that social adjustment which every rural emigrant must face."

The migrant "goes out from the independent, if primitive, life to enter one which must be largely dominated for him by routine. He finds himself in a community swayed by a long-established . . . culture in most respects out of sympathy with his own. The majority arrive with no industrial experience whatever and can do little better than find some low-paid employment for the unskilled in the manufacturing or mechanical industries."

"How then, it must be asked, will migrants . . . fare when they enter the fully organized and established industrial life of the city . . . a way of life for which they are totally unprepared."

Most of what has been said above seems completely timely and descriptive of what is happening and the questions which might be posed in the field of rural to urban migration today. On the other hand, most of it was written some 34 years ago.[1] /Plus c,a change (et) plus c'est la méme chose./ The more things change, the more they are the same. While the quotes cited pertain directly to a specific migrant group, we believe them to have a generalizability which makes them pertinent in a wider sense to the difficulties which confront the migrant of the present time in his move from the rural to an urban environment. They contain the essence of concern which motivated a study of migrants in North Carolina.

---

[1] Leybourne, Grace G., "Urban Adjustments of Migrants from the Southern Appalachian Plateaus," Social Forces, 16 (December 1937) 238-246.

THE NORTH CAROLINA STUDY

The focus of the study resided in the adjustments with which the migrants were faced as a consequence of the change in their environment. Specifically, we wished to obtain insight into (1) the extent to which migrants (a) have and (b) are aware of adjustment problems; (2) the nature of the adjustment difficulties which were perceived; (3) the origins of the problems, i.e., whether they appeared to be consequences of attributes of the migrants, characteristic behaviors of their new neighbors, or features of the institutional structure with which they must deal; (4) differences in the nature and severity of adjustment which related to variant position in the family structure; (5) the extent to which adjustment problems contribute to the dysfunctions of migrants; (6) the extent to which migrants' dissatisfactions with their new lives seemed to derive from problems of adjustment.

The concept of adjustment is not clearly defined. A succinct statement appears to be lacking in the current literature. Further, its study poses a problem in that the kind and degree of adjustment achieved by an individual usually are dependent upon a multiplicity of personal and environmental factors. Human behavior is so complex that it is almost impossible to assert that any particular combination of factors will have a specific effect upon an individual's responses. Additionally, adjustment is a consequence of perception on the part of the individual. An environmental factor which is a cause of severe stress for one person may have little or no effect upon another.

As used in this study, adjustment implies that the most desirable state is one in which the individual is satisfied with all aspects of his environment: one in which he has obtained a level of satisfaction which he would be pleased to consider relatively permanent. Several areas of social interaction seem basic to achievement of such a state. They include (1) attainment of a job for which the individual is prepared and competent and which confers upon him a satisfactory degree of status and financial security, (2) the presence of a set of norms with which the migrant is familiar and which are sufficiently congenial as to cause no psychological nor social stress in their acceptance, (3) a confidence in neighbors and friends which will enable migrants to take an active part in the social life of the community, and (4) the presence of institutional structures and representatives which make conscious efforts to give memberships and/or counsel to the migrant.

There is some evidence to suggest that these factors do not operate independently. Robinson, et al., determined that the adjustment which a worker makes in his community will have an important influence upon his effectiveness and success in a new employment situation.[2]

---

[2] Robinson, Howard F., Benjamin W. Harris, and Paul R. Johnson, Employment Adjustments in Two Growing Labor Markets, Economics Research Report No. 7, Department of Economics, North Carolina State University at Raleigh, December 1968.

One could also assume that other influences would be determinative of the extent to which the migrant considers himself adjusted. Among these would be the presence in the new setting of friends and relatives from the old milieu, the extent to which the premigration environment shared similarities with the postmigration environment, and the length of time the migrant had been in his new environment. Beers and Heflin have provided support for the latter consideration.[3]

The Theoretical Orientation

The symbolic interactionist position which guided this research is based upon Rose.[4] It assumes that human behavior is characterized by interaction among persons in terms of sets of perceived expectations that these persons to some degree share with one another.

Individuals expect that others will behave in a certain way given a specific set of conditions; but unless a person "knows" the social meanings of values (collectively constituting the culture) of other persons, he is not able to predict their behavior and adjust his behavior to theirs. The expectations consist of and/or refer to: (1) meaning or definitions of objects (including persons), and their use or "purpose"; and (2) values, or specifications as to how one should or must act toward an object. Social disorganization exists to the degree that a significant proportion of meanings and values are not held in common.

According to this theory, the newcomers to an urban community will be socially disorganized to the degree that their meanings and values differ from those prevalent in the community. Because the migrants come from diverse areas and backgrounds their characteristics are not uniform. Many migrants are seriously disadvantaged socially, economically, and educationally.

There is evidence to support a belief that faulty education plays an important part in the adjustment problems of migrants. But this is only part of the picture, because for many adjustment difficulties arise partly from the lack of community resources to aid the migrant and from the inability of the migrant to cope with the social and economic conditions of the urban community. They frequently lack the social and personal skills necessary to earn an adequate living and to develop a meaningful life in the city.

There are two factors so fundamentally a part of studies of migration that it seems necessary to indicate omission of their consideration in this study. First, we made no determined, theoretically based attempt to ascertain the reasons why the migrant had decided to leave his community of origin. It is quite likely that such reasons might be associated with his problems of adjustment, but our concern was with his present condition. Second, we were not concerned with the impact of the migrants upon the communities into which they moved, although this factor might indirectly be reflected in the nature and intensity of problems of adjustments encountered by the migrants. As Leybourne notes: "The urban adjustment of migrants . . . meets obstacles raised by the misapprehensions in the minds of . . . residents, in addition to those springing from habits of life belonging to (their places of origin)."

---

[3] Beers, Howard, and Catherine Heflin, Rural People in the City, Kentucky Agricultural Experiment Station Bulletin No. 478, July 1945.

[4] Rose, Arnold M., Theory and Method in the Social Sciences, Minneapolis: University of Minnesota Press, 1954.

The Procedures of the Study

Raleigh served as the locus of the study, a decision determined by its central location in the state wherein it draws migrants from much of North Carolina. Raleigh is further attractive to migrants from all parts of the state because it is the capital city and because of major increments in the economic structure of the area.

We interviewed only migrants who had been in Raleigh not less than six nor more than eighteen months. This time span should have provided opportunity to become aware of adjustment difficulties but insufficient time to either rectify or forget them. On the assumption that the meaningful bulk of migrants would be in the child-bearing age, we solicited the names of new children attending three high schools, two junior high schools, and three elementary schools in the city. This group became the basis for a purposive-random selection of 12 families meeting our time parameters: seven white and five black. Four of these families were headed by males, eight by females. Two males had less than high school education, while two had attended high school. Three females had not attended high school, while five had. None had gone to college. Both males and females were evenly divided between the 21-35 and 36-55 age groups.

An interview guide was developed to obtain base data for the study. Within the framework of necessary information, the interviewer was given wide latitude to conduct an in-depth study. Repeated calls, as many as half a dozen, were made to the same family. A black interviewer contacted the black families. In meetings with the white families, the black interviewer was initially accompanied by a white colleague who acted the part of being in charge of the procedure. Eventually the black interviewer was able to conduct the interviewing of these white families with no apparent negative effect. The means of obtaining the data, together with the limited sample, precluded statistical analysis of the findings.

Findings

The younger the adult respondents, the better adjusted they appeared to be. Older migrants expressed more dissatisfaction with their present environment. Families with young children seemed to be the locus of more adjustment difficulties than those with teen-age children.

The presence of a male head did not appear to be associated with the nature and severity of adjustment. Families with female heads seemed to be coping as successfully, although both had problems.

As the educational attainment increased, the respondents were able to better and to more spontaneously articulate their adjustment difficulties. Respondents with an eighth grade education or less initially expressed themselves as having no problems; alternatively, they refused to discuss the subject with the interviewer. After several visits, these respondents did state that they were having problems of adjustment. It is believed that this inability to perceive and communicate problems of adjustment in itself constitutes a serious difficulty of adjustment. Failure to recognize maladjustments, or failure to adjust, would prevent these individuals from seeking assistance which could make their integration into the new community more pleasing and rewarding. On the other hand, it is possible that migrants who professed to have no problems of adjustment may have been more aware of such problems in a latent sense. For, given opportunity to discuss the issue with the study representative after they had come to know and accept him as a neutral person, they did divulge difficulties of adjustment to their new environments.

Finding adequate housing was a major problem for many migrants. They spoke of dissatisfaction with their living conditions, the amount of rent paid for substandard housing, absentee landlords, and their inability to find adequate housing. Where adequate housing was available, the rents were greater than the migrants could afford.

Respondents with the necessary financial resources did not consider attainment of housing per se to be their primary problem. They were more concerned with the nature of life in the community, and they expressed a strong dislike of having to live in close proximity with their neighbors.

Respondents with more education and better paying jobs depended less on friends and relatives for psychic and moral support. These families did not remain in isolation in the new community as long as did those with less education and income. Further, they expressed general satisfaction with the new community. Also, they tended to make frequent visits outside of the new community, whereas their opposites had their major contact within the immediate community.

Occupations of the migrants were varied and included the following: laundry worker, domestic worker, salesman, mechanic, babysitter, waitress, printer, painter, school teacher, and secretary. Unskilled workers tended to be dissatisfied with their occupations, but they stated an acceptance of their mode of work as a matter of survival. Migrants who originally had been farmers appeared less satisfied with their new jobs in comparison with those who had been otherwise employed. Although many of the migrants expressed great dissatisfaction with their present status in the urban community, none indicated a desire to return to the farm.

Low salaries were the source of the most frequently expressed dissatisfaction with present employment. Other typical responses were too many hours and poor working conditions. Females were less likely to exhibit great dissatisfaction with present occupations than were males.

Families low in socioeconomic status depended more upon their families and friends than on other sources for various forms of material assistance. None of these families had received help from any public agency. In fact, respondents expressed a fear of public assistance agencies, even when circumstances warranted a migrant legitimately seeking aid. Some respondents stated that public agencies discouraged the recent migrant from applying for assistance. They preferred to remain anonymous and unaided rather than risk embarrassment by agency personnel. One should not conclude that agency personnel necessarily are oblivious or inhumane. Leybourne states that ". . . social workers confess that strong coercion is frequently necessary in persuading these migrants to take advantage of available benefits." A value conflict apparently is in operation. It should also be stated parenthetically that migrants' knowledge of the range of services and the specific agencies providing them was minimal and largely based on hearsay.

Conclusions

1. The motivation for coming to the urban community varied according to socioeconomic status. The lower-class migrant had tended to come seeking better employment. The upper-class migrant came as a consequence of job transfers or to enroll their children in a better school.

2. The degree and length of isolation in the community of destination varied by socioeconomic status and by pre-existent family and friendship patterns. Migrants with no primary contact remained in isolation longer than those with existent contacts in the urban community. Lower-class migrants commuted outside the immediate community infrequently other than to go to work. Those higher on the socioeconomic scale had social, business, and recreational contacts outside their immediate community.

3. Migration did not appear to have any meaningful effect upon nuclear family relations, but there seemed to be a definite weakening effect upon extended family relations.

4. Education is a major factor associated with adjustment. For those with less education there is evidence of psychological and social

disorientation and of alienation from the total community. Those with higher education did not appear to have this problem.

5. When lower-class migrants did have primary contact in the community through friends and family, they tended to rely upon them, almost exclusively, for a longer period of time than did migrants without such associations. This tendency seemed also to be associated with educational level, permitting the better educated to break the dependency bond more readily.

6. A most significant conclusion drawn from this study is the inability of lower-class migrants to articulate their problems of adjustment. These migrants are apt initially to deny that they are having problems of adjustment. When pressed, they expressed both a knowledge of adjustment difficulties and a lack of familiarity with the formal means with which to cope with them. Further, they evidenced a fear, perhaps based upon social incompetence, to contact assistance agencies. Once rapport had been established between respondent and interviewer, the migrant could talk at length about his problems. On several occasions they requested the interviewer to intercede for them with public and private agencies in an effort to overcome problems they were having.

These migrants simply do not have the educational or experiential backgrounds to enable them to compete successfully in the urban environment. Neither do they have the skills to participate contributively and competitively in the labor market. This means that they are functionally helpless in some major areas of operation within the urban environment. They desperately need the assistance of public agencies which they are hesitant or unable to contact and from whom they are largely hidden.

MIGRATION, POVERTY AND THE RURAL SOUTH *

Lloyd Bacon **

ABSTRACT

The 1967 Survey of Economic Opportunity data are employed to test hypotheses concerning differences in migration selectivity based on assumptions regarding the social distance traversed in the migration process. Theoretically, the greater the social distance crossed in the migration process, the more rigorous would be the selectivity. Conversely, where migration involves movement between similar places, little selectivity would be operative. The operational definition of social distance was in terms of movement across both regional and rural-urban axes. Selectivity was defined in terms of the relative incidences of poverty among the various residence and migration categories. Movement into and out of the rural South provided the analytical focus. In general, empirical relationships between variables were consistent with the theory employed, although important exceptions were found. These exceptions required a modification of the theory.

INTRODUCTION

An interesting way of thinking of the demography of the rural South is in terms of three populations: those who left there, those who inmigrated, and native 1/ rural Southerners. For ease of exposition these three populations, and the migration-residence subpopulations comprising them, are presented in Figure 1 below.

(Figure 1 about here)

Native rural Southerners consist of nonmigrants and rural to rural migrants within the South. Those who left the rural South moved either to rural places outside the region, to urban places in the South, or to urban places within the North and West. Migrants into the rural South are categorized as rural to rural from the North and West, urban to rural within the South, or from the urban North and West into the rural South.

---

* Paper presented at the annual meeting of the Rural Sociology Section of ASAW, February 1-3, 1971, Jacksonville, Florida. The research on which the paper was based was conducted under Memorandum of Agreement No. 12-17-04-6-174 between the Office of Economic Opportunity and the U. S. Department of Agriculture and Memorandum of Agreement No. 12-17-09-2-472 between the U. S. Department of Agriculture and the University of Georgia.

** Research Associate, Institute for Behavioral Research and the Department of Sociology and Anthropology, University of Georgia, Athens, Georgia.

1/ Because of the way residence and migration questions were framed in the 1967 Survey of Economic Opportunity, "native" here indicates that the person's residence both at age 16 and in the Spring of 1967 was in the rural South. Thus "natives" will include an undetermined number of people who migrated to the rural South prior to their 16th birthday.

For analytical purposes, an imaginary boundary between the rural South and the rest of the Nation is created. The central concern is with human migration across this imagined boundary and how this differential migration is associated with differing incidence of poverty among adults with these various residence and migration patterns.

Guiding this research is a body of inductively derived theoretical propositions regarding differences in the rigor of migration selectivity as a consequence of the social distance involved in migration on regional and rural-urban axes. The operational measure of selectivity rigorousness is the incidence of poverty among various residence and migration sub-populations (Bacon, 1971). [2]

The Data and Definition of Key Terms. All data presented here are from the 1967 Survey of Economic Opportunity involving 30,000 households expanded to regional and national totals. Persons reporting ever having lived more than 50 miles from their place of residence in the Spring of 1967 were classified as migrants. Further classification included both the rural-urban and regional dimensions of their residence and migration histories. The data presented here are for persons aged 17 and over when surveyed, and their "original" residence is where they lived at age 16 or younger. (Bowles, et al., 1971) [3]

Information is provided separately for white and Negro adults and for "all races", which also includes other nonwhites. Statistics are not shown when basic data cells contain fewer than 100,000 whites or 50,000 Negroes to minimize risks of presenting unreliable or meaningless estimates. In interpretating the findings, all statements of statistical significance are in terms of the .05 confidence level of sampling error. [4]

---

[2] The theoretical framework followed here is adopted from the inductively obtained propositions in the cited article unless otherwise identified.

[3] This source contains information on the method of development of migrant status and residence history categories used throughout the U. S. Department of Agriculture-University of Georgia cooperative study. Other important aspects of the research design are also discussed that will not be reiterated in this paper.

[4] The technique for calculating the sampling error of estimates for these survey data was developed primarily by the Bureau of the Census personnel. H. Lock-Oh of the Office of Economic Opportunity, assisted in applying these techniques to the USDA-UGA data employed here. These methods are contained in unsigned and undated mimeographed documents on file at the OEO and at the University of Georgia.

Poverty status 5/ is employed here as a "crude measure of how successfully adults in various residence and migration categories have coped with their environments". Differential incidences of poverty among the various residence and migration categories of the South's populations, as defined here, constitutes evidence of the amount of selectivity operative in various kinds of physical movement, or migration patterns.

ANALYTICAL FRAMEWORK

In order to explain the myriad migration streams and counterstreams and the varigated social and demographic characteristics of populations in the numerous residence and migration categories, it is necessary to appeal to a larger, more general body of sociological theory. The employment of concepts and theoretical propositions generally identified under the rubric of structural-functionalism is possible if migration is defined as social behavior (as it is here) explainable in terms of cause and effect from a systems or holistic perspective.

The general model presented by Nix and Bates (1962), built upon foundations provided by Parsons (1951), Sorokin (1947) and the European organicists of the nineteenth century, provides the theoretical guide for this analysis.

The most general features of the Nix-Bates model is schematicized below. As employed here, this schema is used to treat migration, and subsequent adjustment in terms of the "fit" of the migrant with his environment. Migration constitutes the complex of social behavior to be explained in terms of the independent variables of culture, personality, situation and interpersonal interaction. While the data at hand reflect only indirectly on these variables, this model possesses the virtue of fixing one's attention on this interdependent network of variables deemed operative in effecting human social behavior.

5/ In the 1967 SEO, poverty status was determined for each interview unit by relating its 1966 income to a poverty threshold. All related members of a household constituted a separate interview unit, as did each person who lived alone or with persons to whom they were not related. The poverty thresholds used in the USDA-UGA study were those used by the Bureau of the Census, and other Federal agencies, for 1967 poverty population estimates. Age and sex of interview unit head, number and composition of members of the unit, and farm-nonfarm residence were considered in establishing the thresholds.

A SOCIOLOGICAL MODEL OF BEHAVIORAL CAUSALITY

Independent variables	Dependent variable
Culture	
Personality	
Interpersonal Interaction	Social Behavior or Action
Situation	

Human Migration: Causes and Consequences. Stated most simply, migration is viewed as a response to stress felt by the actor resulting from a perceived lack of fit between his own notions (norms) as to behavior appropriate to him and the properties of the social system in which his behavior is located. That is, it is posited that a person-environment conflict (i.e., culture, situation, personality, interaction behavior) induces stress, and that migration is one way to resolve this structurally induced stress by seeking a milieu more nearly compatible with one's own behavior and expectations.

The social distance traversed in migration constitutes a major concept in explaining the consequences of migration. It was posited that a movement to a similar type of environment constituted a movement across minimal social distance. The reasoning behind this was that styles of life in two rural places in the South for example, would probably be quite similar; that a movement to another rural place outside the South would constitute somewhat more of a contrast between origin and destination environments; and that movement to urban places in the South, and finally to the non-South would indicate progressively greater social change.

Finally, it was posited that the greater the social distance involved in migration, the greater would be the selectivity in characteristics of the migrants. Conversely, where very little change in modes of existence was involved (e.g. movement within the South from one rural place to another), very little selectivity would be operative in the migration process; i.e., migrants would not differ significantly from nonmigrants in the population of origin. In contrast, a migrant who left the rural South for the urban North would differ markedly from the residual donor population. Also, the migrant from urban places, particularly if the movement were inter-regional, would little resemble the nonmigratory rural Southerner in the host population.

One measure of the demographic changes in the rural South is a contrast of the racial and poverty compositions of native rural Southerners and those who migrated there. Figure 2 provides an overview of these gross differences in the population of adults living in the rural South in the Spring of 1967.

(Figure 2 about here)

FINDINGS

Descriptive Data. The propositions about relationships between social distance, migration selectivity and subsequent adjustments of migrants to their host environments are reducable to specific testable hypotheses. Since this set of hypotheses led to the way the data were organized, the statistics and underlying predictions will be presented in tandem after the basic descriptive demographic facts are outlined.

Estimates of the numbers of adults, by race and poverty status, who were: (1) still living in their native rural South, (2) those who had left, and (3) those who had moved into the rural South, are summarized in the table below.

(Table about here)

Native Rural Southerners. Nearly 12 million people living in the rural South were natives. 6/ The racial composition of this category is 81 percent white and 18 percent Negro. 7/ Nearly one of every three of these adults was living in poverty in the Spring of 1967, reflecting a rate of one in four for whites and three in five for Negroes.

Most of the South's native rural population had never lived over 50 miles from their 1967 residence, and therefore were classified as nonmigrants in the SEO. These nonmigrants numbered 7.7 million. Some 4.2 million adults had migrated from one rural place to another within the South. There was little difference in the proportion of each race living in poverty between these migrants and nonmigrants. However, the racial composition differed markedly. Rural nonmigrants were twice as likely to be black as were rural to rural migrants within the South, 22 percent and 11 percent respectively.

Migrants Out of the Rural South. Most, 4.6 million, of the 7.9 million adults who left the rural South moved to an urban place within the region. The next largest pattern, some 2.6 million, was to an urban place outside the South. Only .7 million moved to another rural residence outside the census South.

6/ Estimates throughout this paper ignore "return migrants", those who left a residence category and returned. Also excluded here are those migrants from outside the United States. Analysis of the important and interesting categories of migrants are in process and will be presented separately.

7/ All races includes "other nonwhite". This, combined with rounding of estimates prior to division, results in Negro and white percentages not always adding to 100 percent.

The racial composition of the three categories of migration patterns leaving the rural South varied greatly. The sub-population moving to the rural North and West was 98 percent white. Those moving to urban places in the non-South were 40 percent Negro, while 19 percent of intra-regional rural to urban migrants were Negro.

When the data are aggregated for these three migration categories, they number 6 million whites and 1.9 million Negroes who were living away from their original rural Southern residences of origin. The 15 percent incidence of poverty among the total reflected a 12 percent level for whites and 28 percent for Negroes.

The range of poverty incidences among white adults varied little among the three migration patterns. The proportion poor was 12 percent for rural to urban migrants within the South and was 9 percent for those whose rural to urban migration took them out of the South. Eleven percent of the overwhelmingly white migrants from the rural South to the rural non-South were poor.

The proportion of Negroes living in poverty in 1967 differed dramatically from 35 percent of the rural to urban migrants within the South to 20 percent among those whose rural to urban movement was to another region.

Native Rural Southerners and Outmigrants. Both Negro and whites who left the rural South were much better off in terms of poverty status than were those left behind. Incidences of poverty among rural nonmigrants in the South were approximately three times as high for the two races as held for those who had moved to the urban North and West.

Migrants Into the Rural South. A rather startling statistic is that some 2.9 million adults living in the rural South had migrated there from some other type of residence. How the combined movements into and out of the South has altered regional demographic characteristic is suggested by the racial composition of these two streams (i.e. stream and counterstream). For each of the .2 million Negroes who moved into the rural South, ten left. In contrast, for every two white adults who left the rural South, one white adult migrated in the opposite direction.

Expressed otherwise, the 7.9 million strong migration stream out of the rural South was only three-fourths white. The 2.9 million counterstream into the rural South was 94 percent white in composition.

The preponderance of migrants into the rural South had moved there from Southern urban places, numbering some 1.9 million. This was the only sub-category of migrants in this direction with a sufficient number of Negroes, 167 thousand, to enable a reasonably reliable estimate. The incidence of poverty was nearly four times as great for Negroes as for whites (46 percent and 12 percent, respectively) in this migration category.

Proportions of white inmigrants in poverty were: 15 percent for inter-regional rural to rural and was 12 percent among intra-regional urban to rural migrants. Among those who moved to the rural South from urban places in other regions, only 11 percent were in poverty.

Native Rural Southerners and Inmigrants. Again, the greatest contrast was between native rural Southerners and those who crossed regional boundaries as they crossed the rural-urban "boundary". Only 11 percent of all urban to rural inmigrants were in poverty, while one-third of all natives were poor.

Whatever the prior type of residence for whites, he was less apt to be in poverty than was his counterpart joined who was native to the rural South. For Negro adults, the 40 percent in poverty among migrants to the rural South compares favorably with incidences among Negroes in the host population with 61 percent poverty levels. However, any condition or set of circumstances that allow a 40 percent poverty level to be compared favorably with anything is an indictment against the entire social and economic order that permits such conditions.

Statistical Tests of Hypotheses. In order to integrate the theoretical propositions employed as an analytic framework with the findings, a series of hypotheses will be stated and tested for possible rejection on the basis that sampling error could account for observed differences in estimates. As is conventional, the .05 confidence limit is employed in the tests of hypotheses.

In testing hypotheses on migration and poverty status differences, analyses are in terms of race, i.e.: Negro-white differences. This seems appropriate because the pervasive stigmita of being a Negro in this society is invariably reflected in significantly greater amounts of economic poverty regardless of current residence, residence background, or type of migration experienced. A second and related reason is that the marked differences in racial composition of the various residence-migration categories tends to mask underlying demographic-poverty relationships if the "all races" category constitutes the central focus of analyses.

Native Rural Southern Population: Migrants and Nonmigrants. Hypothesis: When race is controlled, there will be no significant difference in poverty incidences between rural nonmigrants and rural to rural migrants within the South.

The hypothesis is accepted. While both Negro and whites who moved from one rural place within the South to another have smaller incidences of poverty than do rural nonmigrants living there (see table), these differences could be consequences of sampling error. 8/ The difference was not significant at the .05 confidence level.

8/ While data are shown rounded to the nearest percent, unrounded data were employed in computing standard errors of difference. When "all races" are compared, the substantive question of relationship between migration patterns, race and poverty are compounded, and the size of N increases so greatly the difference between these rural to rural and rural nonmigrants becomes "statistically" significant.

Migrants Out of the Rural South. Hypothesis: Controlling for race, migrants out of the rural South will have lower incidences than those left behind.

This hypothesis is supported. A thirteen percentage point difference in poverty obtained between whites who left and who remained in the rural South, and the difference for Negroes was 33 percentage points. Both of these were statistically significant differences.

Hypothesis: Controlling for color, migrants from the rural South to the rural non-South will have a lower poverty incidence than rural to rural migrants within the South.

For whites, these data support this hypothesis. The too small base for Negroes prohibits testing their migration-poverty relationship.

Hypothesis: Movement within the South from a rural to urban place will be characterized by a lower proportion in poverty than a move to another rural place outside the South.

For whites, this hypothesis is rejected. In fact, the small (1 percentage point) difference is in the direction opposite of the one hypothesized. This minor difference, as well as the direction of relationships revealed by the estimates, could easily be a function of sampling error (the sampling error of the difference between these estimates is 3.3 percent).

Hypothesis: Controlling for race, rural to urban migrants out of the South will have lower rates of poverty than rural to urban migrants within the South.

The findings are that for whites, the hypothesis is rejected. The observed difference is not statistically significant, although the direction is as hypothesized.

For Negroes, the hypothesis cannot be rejected on the basis of the evidence. The difference in poverty incidences is too great to attribute to sampling error.

Migrants Into the Rural South. Hypothesis: Controlling for race, migrants into the rural South will be less likely to be living in poverty than the native rural Southerners they join.

For whites, this hypothesis is accepted, as it is for Negroes.

Hypothesis: Inter-regional rural to rural migrants into the South will have a lower incidence of poverty than is found among rural to rural migrants within the South.

This hypothesis is rejected for whites and cannot be tested for Negroes because of the lack of data. The direction for whites was as hypothesized, but sampling error could account for the difference.

Hypothesis: It was thought, for theoretical reasons, that the poverty incidence would decline from category to category from inter-regional rural to rural, intra-regional urban to rural, to inter-regional urban to rural. The proportion in poverty did decline as hypothesized, but not significantly.

Finally, those migration streams in opposite directions on both regional and rural-urban axes were quite similar in poverty composition whether the movement was into or out of the rural South.

SUMMARY

With one exception, the tests of hypotheses derived from the theoretical framework whereby selectivity of migrants was viewed as a consequence of social distance traversed were supported where data were employable. For both Negroes and whites, the proportions in poverty decreased as the social distance, as defined here, increased, supporting the theory that the rigor of migration selectivity is associated with increasing social distance between social systems left and joined.

The exception was inter-regional rural to rural migrants both into and out of the South. Neither this stream nor counterstream had sufficient numbers of Negroes to enable an analysis. For whites in this stream leaving the rural South, the incidence of poverty, 11 percent, was actually lower than the 12 percent among rural to urban migrants within the South. It should be recalled, however, that sampling error alone could account for this minute difference, and the direction of relationship could easily be reversed were a total census of the variables available for analysis.

The relationship between poverty and social distance for white rural to rural migrants into the South was in the direction posited, but the difference in poverty between them and rural to rural migrants within the South was not found statistically significant.

As a final caution, it should also be recalled that differences between the three migration patterns into the rural South were not significantly different from each other in terms of incidences in poverty, although each differed significantly from the host population.

Had differences in poverty-migration patterns been "statistically" significant in each case as hypothesized, these findings would be both gratifying and highly unusual in social research whereby theory is systematically tested with data. Rather than negating the theory of migration selectivity, the data generally support it, even though differences do not always meet the specified .05 confidence limit. These findings, in the hypothesized direction with the exception noted, suggest that the theory merits further testing as well as some modifications.

A Modification of Theory. The lowest incidences of poverty were among the two migration categories who crossed both regional and rural-urban boundaries. Both streams that crossed regional boundaries alone had significantly lower proportions than did migrants within the rural South. The poverty status of those who migrated only across rural-urban boundaries resembled those who crossed regional boundaries. Finally, movement involving no boundary crosses resembled, in terms of poverty levels, rural nonmigrants in the South.

Thus, a slight modification is offered to the theory. That is a movement across one boundary, whether regional or rural-urban, is similarly rigorous in the selectivity involved. Restated, a move from one rural place to another in another region seems equally selective as a move across rural-urban boundaries within a region. The hypothesis that a move involving neither boundary crossing would not be selective stands, as does the hypothesis that a move involving crossing both boundaries has maximum slectivity.

Conclusions. Rather than quarrel with the data, or attempt to force them to the theory, it seems more reasonable and promising to employ these findings in modifying, and hopefully improving, the theory whereby migration selectivity is explained.

The inter-regional rural to rural migration pattern is the one where the incidence of poverty does not vary in the direction hypothesized. If "rural" were more carefully and unambiguously defined, i.e. if urban styles of life among rural non-farm residents were separable here from more traditional rural life styles, the empirical findings would be easier to analyze, although how migration-poverty relationships would be effected are matters of speculation.

Since residence identification in this 1967 survey as to whether rural or urban was on the basis of 1960 Census definitions, many residential areas with essentially rural characteristics in 1960 undoubtedly were essentially urban or suburban in character in 1967.

Thus, the theory in question would be more satisfactory if stated in terms of the life style as a variable in the kinds of social systems left and joined by migrants. Given the necessary crudity of the residence categories social demographers deal with when using secondary data, a huge gap remains in theoretical and empirical categories.

In spite of the lack of fit between theoretical concepts and empirical concepts employed here, and the indeterminate consequences of this lack of ift, the theory in question does seem of value as a guide to social demographic research.

REFERENCES

Bacon, Lloyd
1971 "Poverty Among Inter-Regional Rural to Urban Migrants" *Rural Sociology* (either June or September, 1971).

Bowles, Gladys K., A. Lloyd Bacon, and P. Neal Ritchey
1971 (In process) "Rural-Urban Migrants, 1967: A Comparison of the Demographic, Social and Economic Characteristics of Rural-Urban Migrants With Other Population Groups", U. S. Department of Agriculture-University of Georgia Bulletin.

Nix, Harold L. and Frederick L. Bates
1962 "Occupational Role Stress: A Structural Approach." *Rural Sociology* 27 (March): 8-17.

Parsons, Talcott
1951 *The Social System*. New York: Free Press.

Sorokin, Pitirim A.
1947 *Society, Culture, and Personality: Their Structure and Dynamics*. New York: Harper and Row.

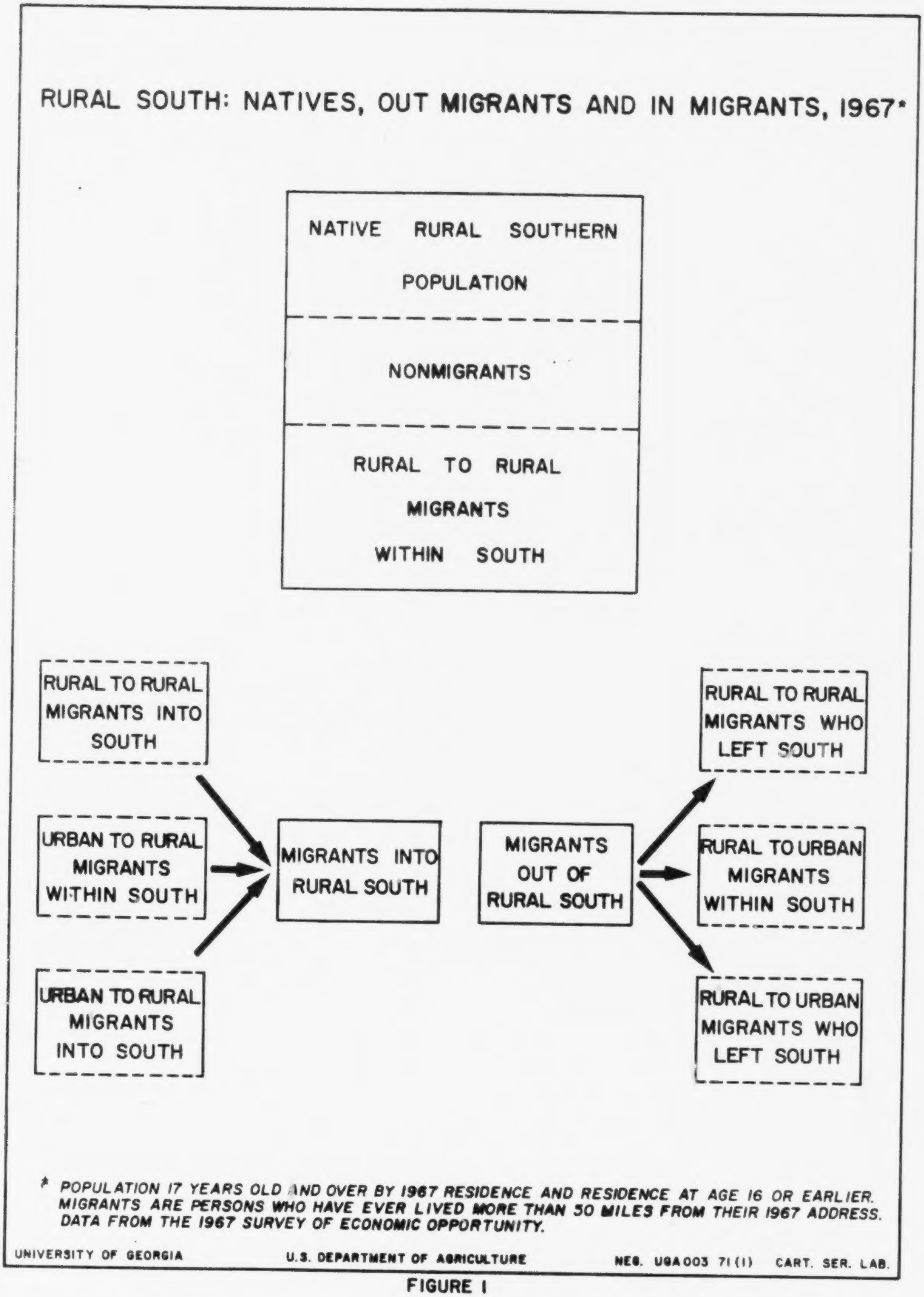
UNITED STATES.--Comparisons of Rural Population Native to the Rural South, Migrants who Entered and Migrants who Left the Rural South, by Race and Poverty Status, 1967 *

	ENTERED THE RURAL SOUTH		RURAL POPULATION NATIVE TO THE RURAL SOUTH		LEFT THE RURAL SOUTH	
	TOTAL		TOTAL		TOTAL	
	No. (000)	% Poverty	No. (000)	% Poverty	No. (000)	% Poverty
All Races	2,921	14	11,930	32	7,910	15
White	2,730	12	9,686	25	5,996	12
Negro	191	40	2,191	61	1,913	28
	INTER-REGIONAL RURAL TO RURAL		RURAL NONMIGRANTS		INTER-REGIONAL RURAL TO RURAL	
All Races	318	15	7,749	34	737	12
White	314	15	5,966	26	724	11
Negro	#	#	1,743	61	#	#
	INTRA-REGIONAL URBAN TO RURAL		RURAL TO RURAL MIGRANTS WITHIN THE SOUTH		INTRA-REGIONAL RURAL TO URBAN	
All Races	1,862	15	4,190	27	4,614	17
White	1,694	12	3,720	23	3,735	12
Negro	167	46	448	58	879	35
	INTER-REGIONAL URBAN TO RURAL				INTER-REGIONAL RURAL TO URBAN	
All Races	741	11			2,559	14
White	722	11			1,537	9
Negro	#	#			1,021	20

---

* Population 17 years old and over by 1967 residence and residence at age 16 or earlier. Migrants are persons who have ever lived more than 50 miles from their 1967 residence. Data are from 1967 Survey of Economic Opportunity. All races includes other nonwhites.

# Less than 50,000.



RURAL SOUTH: NATIVES, OUT MIGRANTS AND IN MIGRANTS, 1967*

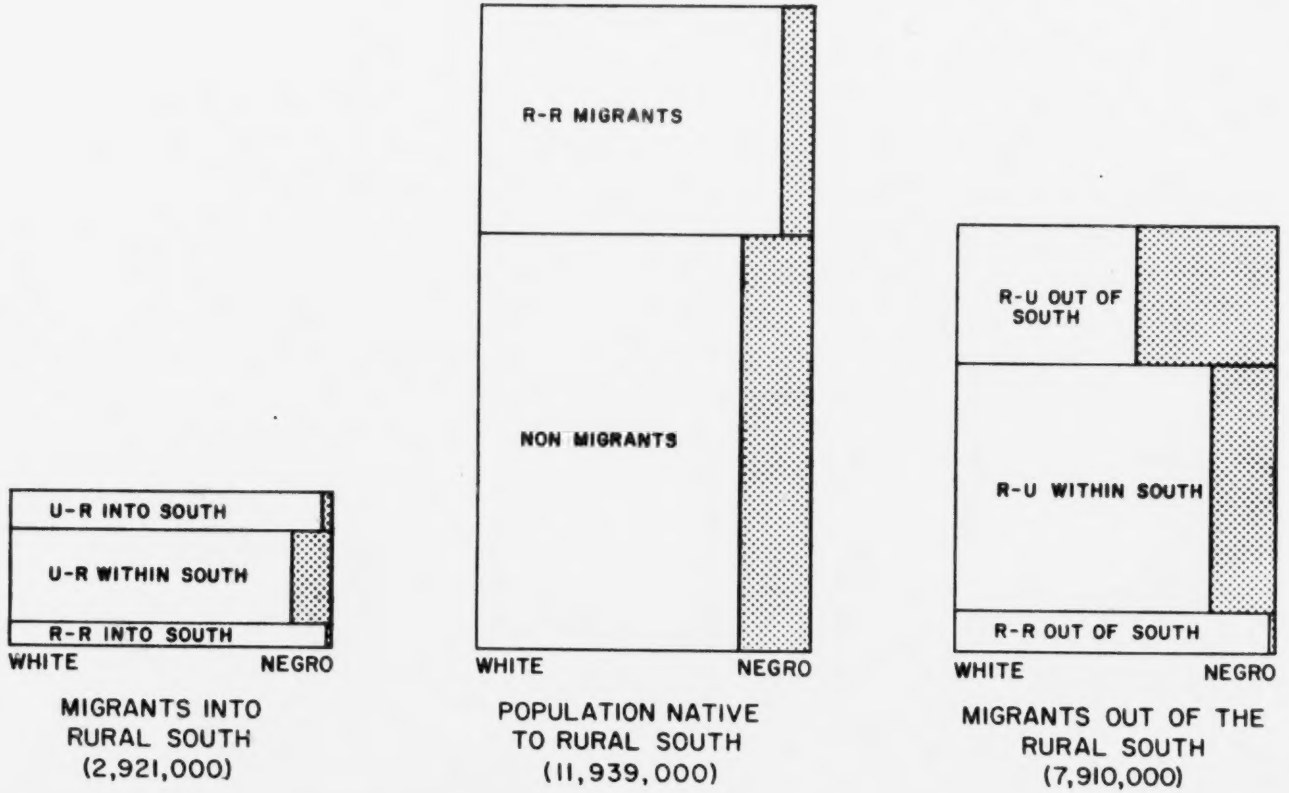
NATIVE RURAL SOUTHERN POPULATION
NONMIGRANTS
RURAL TO RURAL MIGRANTS WITHIN SOUTH
RURAL TO RURAL MIGRANTS INTO SOUTH
URBAN TO RURAL MIGRANTS WITHIN SOUTH
URBAN TO RURAL MIGRANTS INTO SOUTH
MIGRANTS INTO RURAL SOUTH
MIGRANTS OUT OF RURAL SOUTH
RURAL TO RURAL MIGRANTS WHO LEFT SOUTH
RURAL TO URBAN MIGRANTS WITHIN SOUTH
RURAL TO URBAN MIGRANTS WHO LEFT SOUTH

* POPULATION 17 YEARS OLD AND OVER BY 1967 RESIDENCE AND RESIDENCE AT AGE 16 OR EARLIER. MIGRANTS ARE PERSONS WHO HAVE EVER LIVED MORE THAN 50 MILES FROM THEIR 1967 ADDRESS. DATA FROM THE 1967 SURVEY OF ECONOMIC OPPORTUNITY.

UNIVERSITY OF GEORGIA U.S. DEPARTMENT OF AGRICULTURE NEG. UGA 003 71 (1) CART. SER. LAB.

FIGURE I

RURAL SOUTH NATIVES, OUT MIGRANTS AND IN MIGRANTS BY RACE, 1967*



* *POPULATION 17 YEARS OLD AND OVER BY 1967 RESIDENCE AND RESIDENCE AT AGE 16 OR EARLIER. MIGRANTS ARE PERSONS WHO HAVE EVER LIVED MORE THAN 50 MILE FROM THEIR 1967 ADDRESS.*
DATA FROM THE 1967 SURVEY OF ECONOMIC OPPORTUNITY.

UNIVERSITY OF GEORGIA U.S. DEPARTMENT OF AGRICULTURE NEG. UGA002 71(1) CART. SER. LAB.

FIGURE 2

White and Nonwhite Population Characteristics of Growing and Declining Cities of the Nonmetropolitan South

Glenn V. Fuguitt
University of Wisconsin

Community population growth is often thought to be a desirable process that should be sought by leaders and promoted by programs and activities. Critics have begun to challenge this view, at least for some types of community situations, and there has been increasing interest in formulating population distribution policies for the nation. (U.S. Department of Agriculture [1967], Advisory Commission on Intergovernmental Relations [1968], National Goals Research Staff [1970]) This interest has helped to focus attention on needed social science research, for as yet only limited progress has been made in explaining differential growth tendencies, or tracing their consequences for cities or other subunits of the United States. (For a bibliography, see Smith [1970]).

One aspect of previous work has included a few empirical studies made by comparing the population characteristics of cities or other areas having high and low rates of growth. Ogburn (1937), Pik Si Wu (1945) and Duncan and Reiss (1956), have compared cities and metropolitan areas, with similar analyses of villages done by Jenkins (1940) Field (1965) and Fuguitt (1969). Several common findings have emerged. In the study of cities, the conclusion of Ogburn was echoed by Duncan and Reiss that most differentials appear to be related to greater economic opportunities in growing areas, and to migration.

The present study followed this research avenue, extending it to make a separate analysis of whites and nonwhites for cities in the nonmetropolitan South. Given traditions of segregation and differences in socioeconomic status, and life chances between the races, such a separate analysis would seem to be essential to complete the picture in any part of the United States. The presence of significant proportions of blacks in rural parts of the South makes it particularly relevant there. This work is part of a larger study concerned with population trends in nonmetropolitan America, a territory relatively neglected in demographic and urban research.

PROCEDURES

The universe includes all cities in the nonmetropolitan portion of the states of the Census South. These are places ranging in size from 2,500 up to 50,000 located outside Standard Metropolitan Statistical Areas. Cities having fewer than 200 nonwhites in either 1950 or 1960 were dropped, leaving a total of 836. These were cross-classified by white and nonwhite population percent change during 1950-1960, revealing that the two growth variables are not highly associated. On this basis I decided to control white growth when considering nonwhite growth, and vice versa. Four groups were, therefore, identified as follows:

		Number
HH:	20 percent or more growth white and nonwhite	255
HL:	20 percent or more growth white, less than 15 percent nonwhite	110
LH:	Less than 15 percent growth white, 20 percent or more nonwhite	86
LL:	Less than 15 percent growth white and nonwhite	242

The places with 15-19 percent growth, either white or nonwhite, were dropped to accentuate the distinctions and insure that borderline cases are not classified in one or another of the four groups because of trivial differences between white and nonwhite growth. This left 693.

The four groups have remarkably similar proportions of whites and nonwhites, with the percent nonwhite ranging from 21 to 26. Negroes are more than 98 percent of each nonwhite category. Thus in this research nonwhite is synonymous with Negro or black.

White and nonwhite population characteristics were aggregated separately for these four groups and combined and arranged so as to show (1) for white characteristics, differences between places grouped by high or low white population growth, total and controlling for level of nonwhite growth, and (2) for nonwhite characteristics, differences between places grouped by high and low nonwhite population growth, total and controlling for level of white growth. Table 1 (first panel) shows this basic tabulation with the appropriate groups and combinations of groups indicated for each entry. White population characteristics are aggregated for the left side and nonwhite population characteristics for the right side. The total population, white or nonwhite for each cell is given in the second panel. The size of the smallest cell is slightly over 190,000.

The characteristics compared in this classification, other than age and sex, are based on a 25 percent sample. Using the standard error tables published by the Bureau of the Census (1962, pp. xliv-xlv) I had computed .05 tests of significance between growing and declining communities for each sample characteristic. With such large sample sizes, however, it is particularly important not to automatically attribute substantive importance to each significant difference.

The extent to which this classification has succeeded in differentiating growth rates is shown in the third panel of Table 1. Differences in aggregate percent change between low and high growth categories are substantial. The nonwhite high growth categories tend to be about five percentage points below the white. Note also that both whites and nonwhites show lower growth rates within the low growth category for the other group (columns 3 and 6).

Research such as this is only a beginning toward understanding population growth and its impact. There are special problems in interpreting the results, and particularly in infering causality. Growth and decline must of course occur through the operation of the three demographic variables, fertility, mortality and migration, but we do not know the relative importance of these components in the growth and decline of places considered here. To complicate matters further, for cities there is a fourth demographic variable: annexation or detachment. Moreover, if a characteristic is associated with growth, we do not know whether it may be considered a direct or indirect cause, acting through one or more of the demographic variables, or instead reflect a consequence of growth, or perhaps both. More elaborate designs and data presently unavailable are called for; but first things first. This work and its predecessors should at least enlighten a process, and may make future, more definitive studies easier to realize.

RESULTS

Age and Sex Groups of growing places have younger populations than groups of declining places, for both races and within control categories (Table 2). This finding, supported by virtually all previous research, is not surprising in view of the fact that both higher fertility and typical patterns of selective in-migration would contribute to a young age distribution.

Also consistent throughout the second panel of this table is the finding that high growth communities have a higher proportion of men than low growth communities.

Fertility and Migration High growth centers have higher fertility ratios for both colors and this finding also holds up under the control classification (third panel of Table 2). This measure is on the order of 10 percent higher for high growth than for low growth centers. Analysis of family data, not included in the tables, showed also a higher proportion of families with children under 6 and under 18 in the groups of high growth places.

Unfortunately the only migration data available is the distribution of the 1960 population by place of residence in 1955. Thus nothing is known about the net balance of in and out-migration or the precise contribution of migration to growth during the Fifties. Residents of the groups of cities in 1960 are classified by whether they lived in the same house, a different house in the same county, or a different house in a different county in 1955.

Table 3 shows that for both whites and nonwhites, the proportion of people moving within the county was virtually the same regardless of community growth experience. There were proportionately more intercounty moves and fewer remaining in the same house over the five-year period in high growth centers than low growth centers, as one would expect. This difference is significant at the .05 level throughout the table except for blacks in groups of communities having low white growth. All the differences found in this table, however, seem small when contrasted with the percentage changes in Table 1. Though the relative contribution of in-migration, out-migration, and fertility to the growth of these groups of communities is not apparent, the importance of out-migration, particularly for low growth categories, is suggested by the small in-migration percentages found.

Education and Income The white adult population in high growth centers has a larger median years of school completed than in low growth centers, and this finding is consistent with previous research (Table 4). Contrary to this fact, the blacks have higher educational status in low growth centers. The latter finding is all the more remarkable given the age differences previously shown, since older populations as found in low growth centers would tend to have lower educational status. Note that the nonwhite difference is primarily among communities having low white growth, which Table 3 showed to have no difference in in-migration rates. All these differences are significant at the .05 level. One can only give very tentative speculations as to what might be behind these findings. Perhaps much of the difference for whites actually is due to age structure. In studying the relation between migration and educational status, Hamilton (1965) found highest rates of net migration gain for urban and rural nonfarm populations at the lower levels of education. This would suggest the opposite result from that found for the whites, and although it is consistent with the nonwhite finding, in-migration is unimportant for the nonwhite categories with low white growth.

Out-migration from low growth communities may be selective of the poorer educated for nonwhites, and perhaps of the better educated for whites. In his analysis of outmigration of the rural farm population by sex and color, discussed in the article above, Hamilton found a kind of "pivot point" or low net out-migration at eight years of schooling, and higher rates among those with either less than or more than eight years. With the current differences between the races in educational standing, a similar pattern for low growth communities in this study could result in greater aggregate losses for the nonwhites in the low education groups, and for the whites in the high education groups. Without further data, however, these interpretations must remain highly speculative.

The median income figures are consistent throughout the second panel of Table 4 in favor of high growth communities, and therefore in line with previous research (all differences are significant except for column 6). The nonwhite income differentials, therefore, are inconsistent with the nonwhite educational differentials just discussed, since variations in income and educational levels are generally associated.

Labor Force The percent of males in the labor force is higher for high growth places for both whites and nonwhites (first panel, Table 5). The controlling procedure, however, shows no difference where the other group is in the low growth category; that is, in columns 3 and 6.

The association of military employment and growth is indicated in the second panel of this table, with differences between high and low growth communities significant in all columns except the last. As would be expected, this factor affects both groups, so the largest percentage in the military is found for communities where both white and nonwhite components are growing rapidly. Note however, that the percent of nonwhites in the military is generally lower than the percent of whites, and that for these groups of places the military is not a very important occupation in terms of its relative proportion of the labor force.

Percent unemployed shows a small but consistent difference for the white population, with lower unemployment in high growth areas. Differences are larger for nonwhite, and inconsistent. Highest unemployment is found where the nonwhite population is growing rapidly and the white population is not. If low out-migration and in-migration, along with high fertility, is typical of this group, the high unemployment might suggest a "damming up" of people there. But this does not explain the next highest nonwhite rate in the grouping with low nonwhite growth and high white growth. Thus, for nonwhites, unemployment is high where the white and nonwhite growth rates differ.

Both whites and nonwhites are alike in showing inconsistent results for percent of females in the labor force according to Table 6. Only three of the six differences are significant. Duncan and Reiss also reported inconsistent results in comparing growing and declining communities for this variable.

The percent of the labor force that is female, in the second panel, shows a more regular pattern. For whites, low growth communities have a higher proportion of women among those working or seeking work, and the same is true for nonwhites, except for the control category distinguishing communities having low white growth (column 6). Differences for this column and column 3, however, are not significant.

In yet another measure of female labor force participation, whites and nonwhites diverge. For whites in high growth communities, a higher proportion of women are in the labor force among those with husband present and own children under 6, than is true in low growth communities. For nonwhites this pattern holds among communities where the white population is not growing rapidly, but the reverse obtains for the other control category, and these effects cancel each other so the total nonwhite difference is small and nonsignificant.

Occupational Status: Condensed occupational distributions are given for employed men and women in Tables 7 and 8. For white males small but consistent differences show high growth communities to have slightly larger proportions in white collar and craftsmen categories and lower proportions in operatives, service and laborer categories than do low growth communities.

Differences for nonwhites are also small, but they show the opposite relationship for percent white collar, with a higher proportion found in these occupations in low growth communities. (Percent white collar differences, for whites and nonwhites, are significant). For other nonwhite occupations, the findings suggest the influence of white growth rates on differentials by nonwhite growth. Thus where white growth is high (column 5) communities with growing nonwhite populations have slightly higher proportions of the nonwhite male labor force engaged in craftsmen, service and laborer occupations than is true where the rate of nonwhite population growth is low. Where white growth is low, (column 6) communities with growing nonwhite populations have a higher proportion in the operatives category and lower proportions in the other nonwhite male occupational categories in comparison with the group of places in the low nonwhite growth category.

Table 7 also suggests something of a reciprocal relation between overall occupation status for whites or nonwhites and the rate of growth of the population of the other color. Thus the distributions for the low growth control categories (columns 3 and 6) tend to show a slightly greater concentration in higher status occupations than corresponding distributions for high growth of the other color (columns 2 and 5).

Both white and nonwhite occupational differences for women (table 8) present a mixed picture that is difficult to describe, much less interpret. Examination of differences for more detailed occupations, such as clerical or private household workers, also did not reveal any clearcut patterns.

CONCLUSION

This work has examined differences between the population characteristics of growing and declining communities of the nonmetropolitan South considering separately the data for whites and nonwhites. Following the initial finding that white and nonwhite growth are not highly correlated, I decided to control for the growth of one color when considering differences by growth of the other.

None of these differences is very large; in fact very few percentage comparisons differ by as much as five percent. Most differences for sample characteristics are statistically significant; but with the very large group sizes, only small differences are required for significance. Thus one may question the importance of the distinctions found. As measured here, growth and decline simply make little difference in the population characteristics of cities of the nonmetropolitan South.

These results may be explained in part by the analytical approach used. Duncan and Reiss, for example, found bigger differences between growing and declining communities, but their groups were more extreme in terms of the growth variable, and they considered population change over two decades rather than one. No doubt the method of aggregation used here covers up considerable variation. A multiple regression using places as the unit of analysis might be a more satisfactory way of dealing with the problem.

Another reason why the results should not be dismissed is the consistency of many of the differences found. For whites, differences almost always hold regardless of level of nonwhite growth, and where comparable almost all support the previous findings of Duncan and Reiss. These findings are summarized in Table 9. They show that growing communities have higher fertility, in-migration, and the younger age structure usually associated with these; higher socioeconomic status (i.e., greater median income and education, higher percent white-collar); which along with the labor force participation rates suggest greater economic opportunities.

Nonwhite results generally follow those of the whites, and of Duncan and Reiss for the total and the control category where whites have high growth. The two exceptions are median years school completed, and percent males white-collar. Thus the results for SES variables are mixed with high growth communities having higher median income, but lower median years school and percent white-collar. Within the control category in which whites have low growth, there are few significant differences, and some reversals of direction of association are indicated among the labor force variables. Evidently high nonwhite growth in this instance is not associated with in-migration or evidence of greater nonwhite economic opportunities. Thus, an interaction of white and nonwhite growth patterns is revealed, affecting population characteristics of nonwhites. Unfortunately there is no way to determine the extent to which this interaction is due to differences between the control categories in the importance of migration as a component of growth, or to some other effects, such as competition between the races or discrimination in the occupational sphere.

The difficulties encountered in interpreting results such as these show the need to move on to better study designs where data and ingenuity permit.

Plausible causal inferences will be easier to make when these 1960 population characteristics can be related to the succeeding 1960-1970 population change experience. Even crude estimates of the relative importance of migration and natural increase as components of this change would help greatly. Better understanding will also come when it is possible to consider changes in the characteristics variables over the 1960-1970 decade. More immediately, I plan to tabulate the tables in this paper separately by size of place categories, to see if controlling this important variable has any effect on the results. Then I hope to re-analyze the data using a regression approach. As stated in the introduction, this study is only a beginning.

ACKNOWLEDGMENTS

This research was supported by the College of Agricultural and Life Sciences, University of Wisconsin, Madison, through a collaborative agreement between the College and the Economic Development Division, Economic Research Service, United States Department of Agriculture, and by the Division of Social Science of the National Science Foundation, Grant No. NSF GS-1717.

Table 1. Presentation of data by community growth rate and race

	White			Nonwhite		
	Total	Control: nonwhite growth high	low	Total	Control: white growth high	low
Tabulation plan						
High growth	HH+HL	HH	HL	LH+HH	HH	LH
Low growth	LL+LH	LH	LL	LL+HL	HL	LL
Total	HH+HL+ LL+LH			LH+HH+ LL+HL		
Total population						
High growth	2,956,701	2,061,201	895,500	857,385	666,433	190,952
Low growth	1,968,989	523,875	1,445,114	647,498	238,614	408,884
Total	4,925,690			1,504,883		
Percent change						
High growth	47.4	53.1	35.9	41.2	45.0	29.4
Low growth	2.0	6.2	0.6	2.6	7.6	-0.1
Total	25.2			21.5		

Table 2. Median age, sex ratio and fertility ratio, by community growth rate and race, 1960

	White			Nonwhite		
	Total	Control: nonwhite growth		Total	Control: white growth	
		high	low		high	low
Median age						
High growth	28.5	28.3	29.0	20.0	20.0	20.1
Low growth	32.5	30.8	33.1	21.6	22.0	21.3
Total	30.0			20.6		
Sex ratio						
High growth	93.3	93.7	92.6	88.3	88.8	86.5
Low growth	89.4	89.9	89.1	85.8	85.6	86.0
Total	91.7			87.2		
Fertility ratio						
High growth	448	462	416	639	641	631
Low growth	393	412	387	581	587	578
Total	427			614		

Table 3. Percent distribution by residence in 1955, by county growth rate and race

	White			Nonwhite		
	Total	Control: nonwhite growth		Total	Control: white growth	
		high	low		high	low
Residence in 1955						
High growth						
A	44.0	43.9	44.3	55.8	55.3	57.8
B	31.2	30.6	32.5	34.9	35.0	34.6
C	24.8*	25.5*	23.2*	9.3*	9.7*	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Low growth						
A	49.8	49.8	49.8	58.4	57.6	58.8
B	31.9	31.3	32.1	34.1	34.6	33.9
C	18.3	18.9	18.1	7.5	7.8	7.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total						
A	46.4			56.9		
B	31.4			34.6		
C	22.2			8.5		
Total	100.0			100.0		

* Significantly different from corresponding low growth percentage at .05 level.

Table 4. Median years of school completed and median family income, by community growth rate and race, 1960

	White			Nonwhite		
	Total	Control: nonwhite growth		Total	Control: white growth	
		high	low		high	low
Median years school completed						
High growth	10.2*	10.3*	10.0*	6.6*	6.7*	6.5*
Low growth	9.7	9.7	9.7	7.0	6.9	7.1
Total	10.0			6.8		
Median income						
High growth	5,229*	5,248*	5,185*	2,222*	2,253*	2,108
Low growth	4,881	4,942	4,858	2,079	2,122	2,050
Total	5,868			2,161		

* Significantly different from corresponding low growth median at .05 level.

Table 5. Male labor force measures, by community growth rate and race, 1960

	White			Nonwhite		
	Total	Control: nonwhite growth high	Control: nonwhite growth low	Total	Control: white growth high	Control: white growth low
Percent of males in labor force						
High growth	77.3*	78.6*	74.5	70.1*	71.0*	66.7
Low growth	74.9	76.4	74.3	67.0	68.2	66.2
Total	76.3			68.7		
Percent male labor in military						
High growth	4.0*	5.2*	1.2*	1.5*	1.7*	.6
Low growth	0.9	1.9	.5	.4	.3	.5
Total	2.8			1.0		
Percent civilian male labor force unemployed						
High growth	3.8*	3.8*	4.1*	9.0*	8.4*	11.3*
Low growth	4.5	4.2	4.5	9.5	10.4	9.0
Total	4.1			9.2		

* Significantly different from corresponding low growth percentage at .05 level.

Table 6. Female labor force measures, by community growth rate and race, 1960

	White			Nonwhite		
	Total	Control: nonwhite growth high	Control: nonwhite growth low	Total	Control: white growth high	Control: white growth low
Percent females in labor force						
High growth	35.8	35.3	37.0*	47.9*	48.5*	45.8
Low growth	35.8	35.6	35.8	46.8	49.5	45.2
Total	35.8			47.4		
Percent of labor force female						
High growth	34.0*	33.2*	35.7	45.6*	45.4*	46.4
Low growth	35.9	35.2	36.3	46.8	47.8	46.1
Total	34.8			46.1		
Percent of females in labor force with husbands present & children under six						
High growth	22.8*	23.1*	22.1*	36.6	35.7*	40.1*
Low growth	19.5	20.2	19.3	36.7	39.1	35.3
Total	21.4			36.6		

* Significantly different from corresponding low growth percentage at .05 level.

Table 7. Occupational distribution of male civilian employed labor force, by community growth rate and race, 1960 (excludes not reported)

	White			Nonwhite		
	Total	Control: nonwhite growth high	low	Total	Control: white growth high	low
High growth						
A	46.2	45.9	46.6	9.1	9.0	9.4
B	21.9	22.3	21.1	11.3	11.9	10.8
C	20.3	20.1	20.7	27.3	26.7	29.8
D	11.6	11.7	11.6	52.3	52.4	50.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Low growth						
A	45.3	43.6	46.0	10.3	10.2	10.3
B	21.2	21.6	21.0	11.4	11.2	11.9
C	21.4	22.6	21.1	26.9	26.7	27.0
D	12.1	12.2	11.9	51.4	51.9	50.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total						
A	45.7			9.6		
B	21.7			11.3		
C	20.7			27.1		
D	11.9			52.0		
Total	100.0			100.0		

A: White collar
B: Craftsmen
C: Operatives
D: Service, laborers, other

Table 8. Occupational distribution of female employed labor force by community growth rate and race, 1960 (excludes not reported)

	White			Nonwhite		
	Total	Control: nonwhite growth		Total	Control: white growth	
		high	low		high	low
High growth						
A	62.6	64.0	59.9	12.4	12.2	13.0
B	1.1	1.2	1.3	.3	.3	.4
C	19.3	17.8	22.3	8.1	7.9	8.5
D	17.0	17.1	16.6	79.2	79.6	78.1
Total	100.0	100.0	100.1	100.0	100.0	100.0
Low growth						
A	60.1	59.2	60.2	13.2	12.9	13.5
B	1.0	1.0	1.0	.3	.3	.3
C	20.8	22.0	20.4	8.0	7.5	8.2
D	18.1	17.8	18.4	78.5	79.3	78.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total						
A	61.6			12.7		
B	1.1			.3		
C	19.8			8.0		
D	17.5			79.0		
Total	100.0			100.0		

A: White collar
B: Craftsmen
C: Operatives
D: Service, laborers, other

Table 9. Comparison of results with Duncan and Reiss

Characteristic	White			Nonwhite			Duncan and Reiss*	
	Total	Nonwhite high	Nonwhite low	Total	White high	White low	Nonmetropolitan 10,000 25,000	25,000 50,000
Age distribution	-	-	-	-	-	-	-	-
Sex ratio	+	+	+	+	+	+	+	+
Fertility ratio	+	+	+	+	+	+	+	+
Different county 1955 (1949)	+	+	+	+	+		+	+
Median years school	+	+	+	-	-	-	+	+
Median income	+	+	+	+	+		+	+
Percent male in labor force	+	+		+	+		+	
Percent male military	+	+	+	+	+		Not obtained	
Percent male unemployed	-	-	-	-	-	+	Not obtained	
Percent female in labor force			+	+	-			-
Percent of labor force female	-	-	-	-	-		Not obtained	
Percent female (with children in labor force	-	-		-	-		Not obtained	
Percent male white collar	+	+		-	-	-	+	+

+ High growth communities higher

- Low growth communities higher

Only differences significant at .05 level shown for sample data

* The two size categories were selected from Duncan and Reiss because they are closest to the universe used here.

REFERENCES

Advisory Commission on Intergovernmental Relations
1968 Urban and Rural America: Policies for Future Growth. Washington: U.S. Government Printing Office.

Bureau of the Census
1962 U.S. Census of Population: 1960. General Social and Economic Characteristics, United States Summary. Final Report PC(1)-IC. Washington, D.C.: U.S. Government Printing Office.

Duncan, Otis Dudley, and Albert J. Reiss, Jr.
1956 Social Characteristics of Urban and Rural Communities, 1950. New York: John Wiley.

Field, Donald R.
1965 The Social Characteristics Associated with Growing and Declining Small Towns in Wisconsin. Unpublished Master's thesis, University of Wisconsin.

Fuguitt, Glenn V.
1969 "Some Characteristics of Villages in Rural America." Chapter 4 in Rural Poverty in the United States. A report by the President's Commission on Rural Poverty. Washington: U.S. Government Printing Office, 1968.

Hamilton, C. Horace
1965 "Educational Selectivity of Migration From Farm to Urban and to Other Nonfarm Communities." Chapter 7 in Mildred B. Kantor (ed.), Mobility and Mental Health. Springfield, Illinois: Charles C. Thomas.

Jenkins, David B.
1940 Growth and Decline of Agricultural Villages. New York: Bureau of Publications, Teachers College, Columbia University, 1940.

National Goals Research Staff
1970 Toward Balanced Growth: Quantity with Quality. Washington, D.C., U.S. Government Printing Office.

Ogburn, William F.
1937 Social Characteristics of Cities. Chicago: International City Manager's Association.

Smith, Suzanne M.
1970 An Annotated Bibliography of Small Town Research. Madison: Department of Rural Sociology, University of Wisconsin.

U. S. Department of Agriculture
1967 National Growth and its Distribution. Washington: U. S. Department of Agriculture.

Wu, Pek Si
1945 The Social Characteristics of Increasing, Stable and Decreasing Cities. Unpublished Ph.D dissertation, University of Chicago.

DIFFERENTIALS IN FAMILY SIZE PREFERENCES OF LOUISIANA RURAL HIGH SCHOOL SENIORS*

Neil Paterson and Karen R. Paterson
Louisiana State University

Introduction

Data relating to fertility ideals, desires and expectations have proved highly useful in demographic analysis. Most often such questions have been directed at variously designed samples of the married adult population, and used in the projection of fertility levels and in explicating changing patterns of fertility behavior (for example, Goldberg, 1967; Freedman, Whelpton, and Campbell, 1959). At the same time, the very usefulness of these kinds of information has emphasized the lack of understanding of the sources of such preferences and expectations.

Several aspects of expectation-**ideal** data seem especially salient. First, while the questions used have varied considerably (number expected or desired, ideal number for self, or ideal for average American couple) the outcomes tend to be substantially similar, particularly in defining a distinct range of preferences. A general concensus for both married couples and college populations forms around two to four children for both preferences and expectations (Blake, 1966; Whelpton, Campbell and Patterson, 1966). Secondly, although unqualified generalization may be unwarranted, there is evidence, for married couples, suggesting an aggregate stability in fertility expectations which is relatively independent of short-run changes in the family environment. Disturbances

---

*Field work for this study was sponsored by the United States Department of Agriculture, Project S-61, and the Louisiana State University Agricultural Experiment Station. The senior author's research was made possible by time provided by the Institute of Urban and Population Studies, Department of Sociology, Louisiana State University.

The authors would like to thank Dr. A. L. Bertrand for readily making the data available to them; the analysis was greatly facilitated by the assistance of Kenneth L. Koonce, Evans W. Curry and Charles E. Grenier.

like illness, perceived changes in income, and unemployment produced few consistent patterns of change, such individual shifts as occurred tended to be compensating at the aggregate level (Freedman, Coombs and Bumpass, 1965). Finally, similar stability was found in an extensive comparison of female college seniors and first-year students, with little or no difference discerned in average preferred number of children (Westoff and Potvin, 1967, p. 120).

The consistency of the range of preferences, and the stabilities apparent within marriage and through college, have pointed to the need for studying the development of fertility ideals earlier in adolescence. While this is not a novel point of view, having been one of the themes of the Indianapolis Study, it has been expressed most formally as "A Theory of Ideal Family Size Formation" by Westoff and Potvin, when confronted with the lack of an appreciable college effect (1967, pp. 122-124). The theory stresses two aspects of the evolution of ideal family size, the first being the more or less direct transmission of family background characteristics to the child:

> The number of children in the family environment in which the child has grown up seems especially pertinent. This includes not only the number of her own siblings but also the number of children in the families of her friends and neighbors and other salient reference groups. In this context, family size is considered a norm to which the individual is socialized in much the same way that the child learns other values and styles of interaction.
>
> Religious, ethnic, and class memberships can be viewed here as determinants of the early social context in which socialization to the norms of family size occurs, varying in the extent to which they have direct substantive significance for these norms. Certain distinctive types, such as an Irish-Catholic middle-class subculture or the Mormon group, fall in this category...The remaining population (perhaps the majority) may belong to no groups having distinctive subcultural prescriptions for family-size norms and may reflect simply a fairly elastic set of limits of two to four children defined as normative in the national culture.

In general then, Westoff and Potvin hypothesize a continuity from family of orientation to projected family. For some subgroups, however, discontinuities are suggested as significant, with migration and the development of certain socio-economic aspirations emphasized:

> The extent of continuity or consistency of the individual's reference groups in late adolescence and early adulthood with those of the earlier years also appears relevant. The norms acquired in the early home environment would be most similar to those held in later years (for example, as a senior in college) for persons whose experiences and associates in these years represent little change from before. On the other hand, the children of immigrants or of rural migrants, or those from small-town backgrounds, or young persons whose socio-economic aspirations might reflect a rejection of the values of their earlier life may alter sharply their earlier views. Following marriage, which also has relevance for the continuity of norms, the individuals' values about family size may again be modified, depending upon the predominant values of the new environment.

A closely similar argument has been made linking characteristics of the family of orientation and some probable sources of discontinuity in acceptance of family size ideals (Duncan, Freedman, Coble, and Slesinger, 1965, p. 514). Social change, especially, is seen as a general process whereby "The solutions learned in the family of orientation are likely to be inappropriate for current problems."

Data relevant to the first part of the Westoff and Potvin thesis have been explored for a synthetic cohort of sixth, ninth and twelfth graders in two counties of Florida and Georgia (Gustavus and Nam, 1970). Generalizing from such a cohort construct is not without problems, but a significant implication was that the size of family of orientation was most clearly related to students' ideal family size at the sixth grade level, whereas socio-economic status was most clearly related to ideals at the twelfth grade. Thus, a shift over the grades was apparent in what may be interpreted as a rational direction.

This paper seeks to extend the analysis of Gustavus and Nam, by asking if data concerning desired fertility levels of Louisiana rural high school seniors are consistent with the second part of the Westoff and Potvin theory. High school seniors are clearly at a critical point in their life cycle, wherein latent dispositions must be crystallized and articulated, especially in the spring term when the interviews were done. Whether the senior wills it or not, school in its existing form will cease and a wide range of decisions relating to further education, residence and vocation must be reached. If shifts in fertility ideals are apparent with changes in grade levels then it seems likely that further changes will be made as these decision processes are worked out. This study, then, is concerned not with family background as such, but with estimating the extent to which the future plans of seniors affect their desired fertility. The idea of discontinuities in the development of family size ideals is examined in terms of residential and educational aspirations, which seem especially appropriate as two relatively concrete dimensions which are very relevant in the high school senior's context. Specifically the purpose of the paper is threefold:

1. To examine the family size preferences of rural high school seniors.
2. To estimate the variance in desired fertility explained by family background variables.
3. To estimate the additional variance explained by the residential and educational aspiration variables, beyond that explained by the background characteristics.

Sample Design and Interviewing Procedures

The analysis concerns a sample of Louisiana rural high school seniors, interviewed in the spring of 1968. Students were selected by use of a proportionate, stratified, random cluster design. Four administrative districts established by the State Department of Education formed the basic strata, serving to delineate socially distinctive regions of the state, particularly in terms of the broad North-South, Protestant-Catholic dichotomy. From a listing of all rural high schools, units were randomly drawn from within strata until the students clustered in those schools equalled the relevant proportion of all rural high school seniors. Twenty schools were selected, with a total of 544 seniors attending school on the days of interviewing. All seniors present were interviewed, but no attempt was made to contact absent students, and any resultant bias is unknown.

The sampling design was appropriate for the original study, which provided the data for this secondary analysis, and which was concerned partly with school characteristics. However, it should be noted that the outcome is not a representative sample of youth within a rural environment. With the location of the high school as a criterion for selection it is possible to exclude some rural dwelling youths who attend urban school systems, and likewise to capture urban youths, particularly from the fringe areas beyond the limits of larger urban centers, in some rural school zones. Unless one were to argue that the rural high school is a distinctive milieu of interest in its own right, it is not clear precisely to which population generalizations might be made. For this reason, and because of the rather small sample size, the present study should be seen not as definitive but rather as an exploratory phase of a larger study presently in progress.

Analysis

The analysis is confined to the white subsample, numbering 330 of the 544 sampled. Students already married and those not intending to marry were requested to skip the fertility questions, which reduced the analysis set to 307. Since the particular form of the statistical model used, which is described below,assigns equal weights to all categories of the data, including the small no response categories, nonresponses and "don't knows" had to be eliminated; 275 students remained after these procedural steps.

A simple causal scheme is interpreted as underlying the analysis, with aspirations regarded as intervening variables between family background and desired fertility level. The basic questions to be answered are how much variance in the dependent variable is explained by the combination of background attributes, and how much is explained additionally by the aspiration variables? The first step is to specify the relevant family characteristics, and other attributes such as sex, to be included in the preliminary background model.

Religion and type of residence are variables with evident implications for family size norms. Family socio-economic status is of similar importance, but more problematic in this study. Father's occupation was excluded from the analysis because of the overlap of farm occupations and the farm residence category, which would have raised problems of interpretation. An income item was not ascertained in the original survey. Parental education, then, remains as the only available measure of socio-economic status. However, preliminary analyses showed that father's education did not reach a level of significance in the model. This outcome reflects the low variance which father's education has in the sample population, and probably the low correlation between father's educational attainment and occupational achievement, as compared with the national data examined by Blau and Duncan (1967, p. 170). It would seem that for older cohorts in Louisiana a looser relationship has held between educational and occupational attainment, such that father's education is not necessarily indicative of family socio-economic status. Mother's education is included in the model, but is presumably not a complete accounting of family socio-economic status. Other relevant variables, for example, size of family of orientation or religiosity, were not measured in the survey. Thus, the basic model's independent variables are religion, residence, mother's educational attainment and sex. The categorization of these variables is shown in Table 1. The dependent variable, desired family size, comprises the responses to the simple questions:

> 'Do you want to get married some day?"
> If yes: "How many children do you want?"

The percentage distributions for desired family size by the background characteristics are shown in Table 1.

The form of the data, an interval level dependent variable together with inter-correlated independent variables, some of which are nominal, suggests multiple classification analysis as the appropriate means of estimating the respective proportions of variance explained by the background and aspiration models. This procedure leans heavily on the rationale for such analyses presented in Blau and Duncan (1967, pp. 128-140, and pp. 371-392). However, while the perspective is similar, it should be noted that the specific statistical model used here differs somewhat from that described by Blau and Duncan (Harvey, 1960; Andrews, Morgan and Sonquist, 1969, p. 104).

The multiple classification model may be viewed from the standpoint of multiple regression with dummy variables or least squares analysis of variance. In either case the analysis assumes the data conform to an additive model in which variable effects, and possible interaction terms, are expressed as deviations from a general constant. In this instance, the general constant is the least squares mean, calculated on an assumption of equal subclass frequencies, or equally weighted categories (Yates, 1934). The deviations from the constant are adjusted so as to hold constant the effect of other variables in the model, and are constrained such that the sum of deviations for the categories of each variable equals zero. The significance of main effects and interaction terms may be tested by the conventional F test. However, the assumptions of such tests are not fully met by the data. Accordingly, when F values are given they should be interpreted with caution. In general, where an adjusted deviation seemed large enough to be of substantive interest the question of the statistical significance of the relationship was taken to be of lesser importance. More crucial for the type of hypothesis testing undertaken here is not merely the determination of significance but the estimation of the degree of relationship. The sums of squares provide this information, and allow the additional effect of the aspiration variables to be assessed.

Table 1. Percentage Distribution of Desired Family Size by Sex, Religion, Residence and Mother's Education for a Sample of Louisiana Rural High School Seniors: 1968

Characteristic	Desired Family Size 0	1	2	3	4	5	6	7	8	9	10
All seniors	1.8	1.5	21.5	24.0	31.3	8.7	5.5	2.9	1.1	1.1	0.7
SEX											
Male	2.3	2.3	28.6	27.1	24.1	6.8	3.8	3.0	0.0	.8	1.5
Female	1.4	.7	14.8	21.1	38.0	10.6	7.0	2.8	2.1	1.4	0.0
RELIGION											
Protestant	2.7	1.3	28.2	32.2	26.2	5.4	3.4	.7	0.0	0.0	0.0
Catholic	.8	1.6	13.5	14.3	37.3	12.7	7.9	5.6	2.4	2.4	1.6
Residence											
Urban	1.3	1.3	21.8	28.2	26.9	9.0	5.1	3.8	1.3	1.3	0.0
Rural Nonfarm	3.2	1.1	23.2	24.2	29.5	7.4	6.3	2.1	2.1	1.1	0.0
Farm	1.0	2.0	19.6	20.6	36.3	9.8	4.9	2.9	0.0	1.0	2.0
MOTHER'S EDUCATION											
Less than high school grad.	1.7	.8	21.0	23.5	31.9	9.2	5.9	2.5	.8	.8	1.7
High school graduate	2.1	0.0	22.7	23.7	30.9	10.3	5.2	3.1	0.0	2.1	0.0
More than high school graduate	1.7	5.1	20.3	25.4	30.5	5.1	5.1	3.4	3.4	0.0	0.0

As a brief digression, the computations displayed in Table 1 and Table 2 are offered for whatever interest they may hold. These tables are not directly relevant to the model construction but afford some basis for comparing the Louisiana pattern of family size preferences with that found in similar studies (for example, Gustavus and Nam, 1970; Knapp and Boyd, 1970). The percentage distributions of desired family size illustrate the typical clustering within the range of two to four children, with female seniors showing a tendency to prefer larger families than males, and higher preferences for Catholics compared to Protestants. The pattern of means and gross effects, or deviations from the grand mean, presented in Table 2 show the same patterning, of course. Sex and, especially, religion have considerable differentials, while those for residence and mother's educational attainment are quite small, although mainly in the direction one would hypothesize.

In Table 2, the net effects, or adjusted deviations from the least squares mean, closely parallel the gross effects, reflecting the low inter-correlation of the background variables. Especially noteworthy is the relationship between mother's educational attainment and residence type with desired family size. Although rural nonfarm residence has little effect, the effects of urban and farm residence run in opposite directions. For farm residents raising mother's educational level depresses desired fertility, whereas the reverse is true for urban seniors, whether gross or net effects are examined.

The degree of relationship between the background variables and desired family size is given in the analysis of variance results shown in Table 3. Since the presence of interaction was unknown, the model was written for all main effects and interaction terms. Again, what weight should be given the F values is problematical. It seems clear enough, however, that the main effects of sex and religion are significant, while those of residence and mother's education are not. In the final model, the interaction of the latter variables seemed of sufficient substantive interest to be included, although if the F statistic is taken at strictly face value, significance at the .05 level of probability is not quite reached. The judgement to include this interaction is supported somewhat by its formal significance in the expanded model discussed below. The other interaction terms were considered to be non-significant and were deleted. Table 4 has the results for this final background model. The figure of interest here is the explained sum of squares, with these background variables explaining a modest 18 per cent of the variance in desired family size.

Table 2. Effects of Selected Background Characteristics on Desired Family Size for a Sample of Louisiana Rural High School Seniors: 1968

Characteristics	Number of Seniors	Desired Family Size Means	Gross Effects[a]	Net Effects[b]
All Seniors	275	3.64	--	(3.45)[c]
SEX				
Male	133	3.36	-.28	-.26
Female	142	3.90	+.26	+.26
RELIGION				
Protestant	149	3.11	-.53	-.61
Catholic	126	4.27	+.63	+.61
RESIDENCE				
Urban	78	3.62	-.02	-.03
Rural Nonfarm	95	3.54	-.10	-.10
Farm	102	3.75	+.11	+.13
MOTHER'S EDUCATION				
Less than high school grad.	119	3.71	+.07	+.10
High school graduate	97	3.63	-.01	-.04
More than high school graduate	59	3.51	-.13	-.06
RESIDENCE BY MOTHER'S EDUCATION				
Urban < H.S.	26	3.23	-.41	-.37
Urban H.S.	22	3.72	+.08	-.15
Urban > H.S.	30	3.87	+.23	+.52
Rural < H.S.	49	3.55	-.09	-.04
Rural H.S.	34	3.56	-.08	+.13
Rural > H.S.	12	3.42	-.22	-.09
Farm < H.S.	44	4.18	+.54	+.41
Farm H.S.	41	3.64	.00	+.02
Farm > H.S.	17	2.94	-.70	-.43

[a] Deviations from grand mean

[b] Deviations from least squares mean adjusted for all other variables

[c] Least squares mean

Table 3. Analysis of Variance of Desired Family Size and Selected Background Characteristics for a Sample of Louisiana High School Seniors: 1968

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Total	274	733.3600		
Total Reduction	19	151.6041	7.9792	3.497
Sex	1	15.6730	15.6730	6.870
Religion	1	85.8660	85.8660	37.637
Residence	2	2.0210	1.0105	0.443
Mother's Education	2	1.4387	0.7193	0.315
Sex by Religion	1	0.1449	0.1449	0.064
Sex by Residence	2	8.1825	4.0913	1.793
Sex by Mother's Education	2	5.1359	2.5679	1.126
Religion by Residence	2	1.1788	0.5894	0.258
Religion by Mother's Education	2	1.7394	0.8697	0.381
Residence by Mother's Education	4	20.8247	5.2062	2.282
Remainder	255	581.7559	2.2814	

Table 4. Analysis of Variance of Desired Family Size and Selected Background Characteristics for a Sample of Louisiana High School Seniors: 1968. Final Background Model

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Total	274	733.3600		
Total Reduction	10	134.3432	13.4343	5.921
Sex	1	13.9528	13.9528	6.149
Religion	1	88.2605	88.2605	38.898
Residence	2	1.9831	0.9916	0.437
Mother's Education	2	1.0665	0.5333	0.235
Residence by Mother's Education	4	20.4303	5.1076	2.251
Remainder	264	599.0168	2.2690	

The second stage of the analysis is to assess the relative contributions of the seniors' educational and residential aspirations in explaining their family size preference, after allowing the background variables to explain as much variation as they can. Educational aspirations were ascertained from responses to a question relating to having "as much schooling as you desired", with six options ranging from leaving school immediately to pursuing graduate studies. None of the seniors wished to leave school before graduation, and their aspirations were grouped into three categories: complete high school only, or vocational training, or junior college; graduate from college or university; and graduate studies. Residential aspirations were similarly grouped into three categories, from responses to a question asking the place most desired"to live for the rest of your life." The categories are: large or medium city; small city or town; and rural. For seniors residing in urban or rural nonfarm areas, the rural residential aspiration represents rural nonfarm essentially, since very few students wanted to live on farms in the future if they did not already do so. For farm residents the rural residential aspiration represents both rural nonfarm and farm. As was the case for other variables, the presence of significant interactions in preliminary analyses necessitated a grosser categorization of the residential aspiration data than is desirable, in order that conclusions would not be drawn from excessively small subclass frequencies. Consequently, several cross-classifications of potential substantive interest, for example, farm residents with farm aspirations, were lost in the collapsing of the data. As a final cautionary note, in ascertaining residential aspirations no size of place reference was given to the respondents, who were therefore left to judge for themselves what represented a large or small city. Any size of place differentials should accordingly be interpreted with caution.

The final results of adding the two aspiration variables to the background model are taken up in Table 5. If the F statistics are taken at face value, the effects of sex and religion are significant, as are the interactions of residence by mother's educational attainment, religion by educational aspiration, and educational aspiration by residential aspiration. As was the case for the background model, the adjusted deviations were considered, as well as the F values, in determining which variables and interaction terms would be included in the model. Two interaction terms, apparently fairly close to significance, were left in the model on that judgemental basis.

It is readily apparent that there is no answer to the original form of the questions relating to the aspiration variables. Given the complex pattern of interactions it is not possible to isolate the relative contributions of background and aspiration items. The only conclusion to be drawn derives from a comparison of explained variance attained by each model. From that point of

Table 5. Analysis of Variance of Desired Family Size and Selected Background Characteristics Together With Residential and Educational Aspirations, for a Sample of Louisiana Rural High School Seniors: 1968

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Total	274	733.3600		
Total Reduction	28	230.5478	8.2338	4.028
Sex	1	25.8367	25.8367	12.641
Religion	1	79.8682	79.8682	39.075
Residence	2	2.4174	1.2087	0.591
Mother's Education	2	4.3745	2.1872	1.070
Educational Aspiration	2	11.5228	5.7614	2.819
Residential Aspiration	2	8.2433	4.1216	2.017
Residence by Mother's Education	4	38.3357	9.5839	4.689
Residence by Residential Aspiration	4	16.8334	4.2083	2.059
Mother's Education by Residential Aspiration	4	16.7717	4.1929	2.051
Religion by Educational Aspiration	2	20.5787	10.2893	5.034
Educational Aspiration by Residential Aspiration	4	26.4450	6.6112	3.235
Remainder	246	502.8122	2.0440	

view the two aspiration measures have raised the percentage of explained sums of squares from 18 to 31, which may be seen as an appreciable increase.

While the increase in explained sums of squares is highly interesting in light of the Westoff and Potvin thesis that motivated the analysis, the complex form of the enlarged model clearly demands some explanation. To that end certain of the deviations computed for the model appear in Table 6. There is no ready explanation to offer for the pattern of certain of the interaction effects, for example those of religion by educational aspiration. Indeed, from an analytical perspective some apparent effects may be largely artifactual. If the aspiration categories are regarded as projected destination statuses, and residence and mother's educational attainment as origin statuses, some apparent effects can be dismissed as due to particular combinations of the different origin effects. That is to say, given the basic interaction between residence and mother's education, the combination of those origins in specific aspiration categories can produce the patterns found.

If the observed means are examined for residential aspirations by both mother's education and residence (note that here the realm of speculation from extremely low numbers of cases has been entered), it is found that, looking within educational levels, for urban residents desired fertility decreases passing from large city to rural aspirations, whereas for farm residents mean fertility preferences increase with shifts from city to rural aspirations. Looking across levels of mother's education, the urban and farm origin patterns persist for all aspiration categories, while the rural nonfarm group split according to aspirations: those with large city aspirations have the inverse trend of desired fertility with education typical of farm residents, while those with rural aspirations have the positive urban pattern, although in much attenuated form. This division of the rural nonfarm group, for which no explanation is available, accounts for many of the effects seen in Table 6. Again looking at observed means, the effect of educational aspiration within residence and mother's education classes is simpler: for all three residential groups, and within each level of mother's educational attainment, increases in educational aspirations tend to depress desired family size more or less consistently, in spite of the underlying interaction between mother's education and residence.

Table 6. Adjusted Deviations From Least Squares Mean for Selected Determinants of Desired Family Size for A Sample of Louisiana High School Seniors: 1968

Variable	Adjusted Deviations	Variable	Adjusted Deviations
All Seniors	(3.42)		
Sex		Res. by Res. Asp.	
Male	-.34	Urban --Large city	+.31
Female	+.34	Urban --Small city	+.06
		Urban --Rural	-.36
Religion		Rural --Large city	+.14
Protestant	-.59	Rural --Small city	-.05
Catholic	+.59	Rural --Rural	-.09
		Farm --Large city	-.44
Residence		Farm --Small city	-.01
Urban	+.15	Farm --Rural	+.45
Rural Nonfarm	-.05		
Farm	-.10	Mother's Educ. by Res. Asp.	
Mother's Education		< H.S. --Large city	+.19
Less than H.S.	+.17	< H.S. --Small city	+.03
H.S. Grad.	+.05	< H.S. --Rural	-.22
More than H.S.	-.22	H.S. --Large city	.00
		H.S. --Small city	+.35
Educational Asp.		H.S. --Rural	-.35
H.S.--Voc.tr.	-.07	> H.S. --Large city	-.19
College Grad.	+.32	> H.S. --Small city	-.38
Grad.Studies	-.25	> H.S. --Rural	+.58
Residential Asp.		Religion by Educ.Asp.	
Large/Med. city	-.11	Prot.--H.S. Grad.	+.12
Small city/town	-.16	Prot.--College	-.44
Rural	+.27	Prot.--Grad.Studies	+.32
		Cath.--H.S. Grad.	-.12
Res. by Mother's Educ.		Cath.--College	+.44
Urban < H.S.	-.55	Cath.--Grad.Studies	-.32
Urban H.S.	-.16		
Urban > H.S.	+.70		
Rural < H.S.	-.09		
Rural H.S.	+.19		
Rural > H.S.	-.10		
Farm < H.S.	+.64		
Farm H.S.	-.03		
Farm > H.S.	-.60		

Discussion

In general, the results of the analysis lend support to the Westoff and Potvin theory of ideal family size formation. High school seniors do indeed seem to be at a critical stage in their life cycle in which their future aspirations are influencing projected family size preferences. At the same time some aspects of the specific model derived require further verification before a detailed explication seems worthwhile. Several other paths are available for future research. In particular, it seems worth looking at more dimensions of aspirations, and at expectations, but with more refined measures than the simple questions which provided the basis for this study, and which undoubtedly did not tap all the implications of the aspiration concept. Longitudinal studies would also answer many questions, which are still unresolved, about the ability of such aspirations to predict subsequent fertility behavior, rather than merely a similar dimension of fertility aspirations.

Because of the sample size and design, formal predictions were not really sought here, but rather hypotheses for further testing. Even with that demurrer, the broad problem of the degree of confidence to be placed in such aspiration responses remains. We may have little more than vague desires reached at the time the questions were posed, or what Westoff and Potvin characterized as "immature sentiments of late adolescents" (1966, p. 493). The results, however, provide the basis for reassuring inferences in this respect. The range of family size preferences expressed by the seniors was consistent with that found for adult married couples, and the kinds of differentials found were similarly consistent with both other high school studies and with the patterns found in the family size preferences and actual fertility of the adult population. Such consistencies suggest we are dealing with something that may be sufficiently real to be of interest in the analysis of fertility behavior. Gustavus and Nam's report of the proportions of students who had thought about ideal family sizes before being interviewed also supports these inferences (1970, Table 1, p. 46).

Finally, the weight to be attached to the substantial increase in the explanation of desired family size by adding the two aspiration variables, from 18 to 31 per cent of the sums of squares, should be assessed with the logical basis for the two models in mind. Briefly, the procedure was to estimate the explained variance in the background model, and then the additional variance explained by the aspiration variables. This latter estimate inevitably reflects the adequacy of the background model. The distribution of the relative contributions to the explained variance will depend on how many of the relevant background characteristics were actually included. We have already noted that several potentially important variables were not available for inclusion. The additional variance explained by the aspirations will be inflated to the extent that background variables not included would add to the estimate of background effect, while also being associated with aspirations.

However, after expressing all such reservations and qualifications, the study lends considerable further support to the idea that the family size preference are formed rather early in the life cycle, and in the context of a multidimensional decision reaching process which may be particularly salient in the senior year of high school.

Andrews, Frank, James Morgan and John Sonquist. 1969. Multiple Classification Analysis: A Report on a Computer Program for Multiple Regression Using Cateogorical Predictors. Ann Arbor: University of Michigan, Institute for Social Research.

Blake, Judith. 1966. Ideal family size among white Americans: a quarter of a century's evidence. Demography 3:154-173.

Blau, Peter M., and Otis Dudley Duncan. 1967. The American Occupational Structure. New York. John Wiley.

Duncan, Otis Dudley, Ronald Freedman, J. Michael Coble and Doris P. Slesinger. 1965. Marital fertility and size of family of orientation. Demography 2:508-515.

Freedman, Ronald, P. K. Whelpton and Arthur A. Campbell. 1959 Family planning, Sterility, and Population Growth. New York: McGraw-Hill.

Freedman, Ronald, Lolagene C. Coombs and Larry Bumpass. 1965. Stability and change in expectations about family size: a longitudinal study. Demography 2:250-275.

Goldberg, David. 1967. Some observations on recent changes in American fertility based on sample survey data. Eugenics Quarterly 14:255-264.

Gustavus, Susan O., and Charles B. Nam. 1970. The formation and stability of ideal family size among young people. Demography 7:43-51

Harvey, Walter R. 1960. Least Squares Analysis of Data with Unequal Subclass Numbers, ARS-20-8 Washington: U.S. Department of Agriculture, Agricultural Research Service.

Knapp, Melvin, and V. A. Boyd. 1970. Family size preferences among black-white adolescents in the South. Unpublished paper presented at the National Council on Family Relations meeting.

Westoff, Charles, and Raymond H. Potvin. 1966.
Higher education, religion and women's family-size orientation. American Sociological Review 31:489-496

Westoff, Charles F., and Raymond H. Potvin. 1967.
College Women and Fertility Values. Princeton: Princeton University Press

Whelpton, Pascal K., Arthur A. Campbell and John E. Patterson. 1966.
Fertility and Family Planning in the United States. Princeton: Princeton University Press.

Yates, F.,1934.
The analysis of multiple classifications with unequal numbers in the different classes. Journal of the American Statistical Association 29:51-66.

CHANGES IN LAND USE AND MECHANIZATION AND MIGRATION FROM GEORGIA FARMS

Prakash C. Sharma — University of South Alabama
James D. Tarver — University of Georgia

ABSTRACT This study used six independent variables to explain the 1950-1960 net migration from Georgia farms. There were three major objectives: (1) to develop estimates of net migration of the farm male population by age groups for Georgia counties for 1950-1960; (2) to relate these estimates to changes in acreages of cotton, tobacco, and peanuts, and to changes in farm mechanization; and (3) to study the relationship between net migration of farm males and changes in off-farm work and gross farm income for 1950-1960. Data were obtained from U. S. Population and Agricultural censuses for Georgia. The dependent variable used was an estimate of the net migration of farm males ten years of age and over in 1960. The study employed a stepwise regression model to determine the significance of the six independent variables (changes in cotton acres, changes in peanut acres, changes in farm mechanization, changes in off-farm work and changes in gross farm income) in explaining county net migration. The findings indicate that Georgia had a net loss of 285,179 farm males ten years of age and over in 1960 due to migration during 1950-1960. The regression model used explained 75 percent of the variation ($R^2 = .75$) in county net migration of farm males. All six variables were important. Decrease in cotton acres was the most important variable followed by changes in the gross farm income and off-farm work, respectively. The study suggested that, locating industries in rural areas could affect the rate of out-migration of farm males through increasing employment opportunities for off-farm work in basic, secondary, and service industries.

Net farm migration estimates are useful in various demographic analyses and in the planning of action programs. They indicate where farm population has decreased, increased, or stabilized. Among the programs making use of such measures are those relating to manpower utilization, the location of industry, recruitment for the armed forces, and to interrelationships of agribusiness and farm population. An explanation of the volume, direction, and composition of net migration is of primary importance to persons interested in an appraisal of rural population problems and to the initiation of programs directed toward their solution.

A significant change in the composition of Georgia's population between 1930 and 1960 was the decline in the farm population and the increase in its urban and rural nonfarm segments. In 1960, the urban population of Georgia was nearly two and a half times greater than in 1930. In 1930, the farm population of Georgia constituted about one-half of the total population, whereas in 1960, it was only ten percent of the total. Also, the farm population in 1960 was slightly less than one-third of the total farm population in 1950. Farm population decline and increases in the population of urban areas in Georgia during 1950-1960 were associated with changes in patterns of cropland use, farm mechanization, changes in off-farm work, and changes in gross farm income. This study was an attempt to describe and evaluate this relationship.

OBJECTIVES

The specific objectives of the study were

1. To develop 1950-1960 estimates of net migration for the farm male population for the counties of Georgia, and relate these to changes in the acreages of cotton, tobacco, and peanuts.
2. To relate net migration estimates of farm males to changes in farm mechanization during 1950-1960.
3. To study the relationship of net migration of farm males with changes in off-farm work and gross farm income, respectively, for 1950-1960.

METHODS AND PROCEDURE

This study was based on population data for 1950-1960 from the U.S. Population Censuses of 1950 and 1960 for 159 Georgia counties. Data on crop acres, changes in farm mechanization, changes in off-farm work and changes in gross farm income were taken from U. S. Censuses of Agriculture for Georgia for the years 1950 and 1959.

Since no vital statistics were available for the farm population, net migration estimates for farm males 10 years of age and in 1960 were computed by employing the census survival ratio technique. The 1950-1960 national census survival rates employed here were computed by the U.S.Bureau of the Census.[1] These survival rates are based on the population by age groups in two successive censuses and represent the ratio of population in a given age group at the second census to the population in the same cohort[2] at the earlier census.

In the estimation of county net migration, the following computations were made:

(1) The population by age as enumerated in earlier census (P_o) during the decade are multiplied by the national census survival rate (r) to obtain the expected population by age at the later census on the assumption that there had been no migration.

(2) The expected population (P_or) by age is subtracted from the population by age as enumerated at the later census (P_1), to obtain the estimates of net migration (M) for the particular age cohort. For the purpose of this study, forward surviv . procedure was used in order to estimate the net migration, discussed as below:

$M = P_1 - rP_o$ where

M = estimated county net migration of farm males 10 years of age and over in 1960

r = age specific survival expectancy rate

P_1 = enumerated farm male population in 1960 and

P_o = enumerated farm male population in 1950

Such calculations were carried out separately for each age cohort. A positive result indicates net in-migration and a negative result indicates net out-migration. An illustration of how net migration estimates were obtained is given in Appendix Table 1, Part I and Part II, for Appling County.

---

[1] U. S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P.23, No. 15, July, 1965.

[2] The term cohort as used here refers to a group of persons born in the same year or group of years (e.g., ages 20-24 in 1950 and 30-34 in 1960).

The dependent and independent variables used in the analysis were as follows:

Dependent Variables (Y)

Y = estimate of net migration of farm males during 1950-1960.

Independent Variable

X_1 = changes in cotton acres harvested during 1949-1959.

X_2 = changes in tobacco acres harvested during 1949-1959.

X_3 = changes in peanut acres grown alone during 1949-1959.

X_4 = changes in farm mechanization. Farm mechanization was measured in terms of changes in the number of wheel tractors per 1,000 acres of open land during 1949-1959. Open land comprised four main cropland uses: (1) acres of cropland harvested, (2) acres of cropland used only for pasture, (3) acres of cropland not harvested and not pastured, and (4) other pasture (not cropland and not woodland).

X_5 = changes in the number of farm operators working off their farm (100 days or more) during 1949-1959. The off-farm work was defined to include work on someone else's farm for pay as well as all types of non-farm jobs, business, and professionals, whether the work was done on the farm premises or elsewhere. Exchange work was not included.

X_6 = Changes in gross farm income during 1949-1959.

Data from secondary sources were tabulated, coded, and then punched into IBM cards. First, the computation of county net migration estimates of farm males during 1950-1960 by age, using the national census survival ratio techniques were made; second, the measurement of changes in crop acres, changes in farm mechanization, changes in off-farm work and changes in gross farm income were made; and third, multiple regression and partial correlation techniques were used to determine the significance of six independent variables listed above in explaining the 1950-1960 county net migration of farm males in Georgia.

The stepwise regression analysis, using BMD02R program, was performed on the 7094 computer.[3] This program computes a sequence of multiple linear regression equations in a stepwise manner. At each step, one variable is added to the regression equation. The variable added is the one which makes the greatest reduction in the total sum of squares. Also, it is the variable which has the highest partial correlation with the dependent variable on the basis of variables which have already been added; and equivalently, it is the variable which, if it were added would have the highest F value.

---

[3] W. J. Dixon, (ed.), BMD: Biomedical Computer Program (Berkeley: University of California Press, 1968), pp. 233-234.

HYPOTHESES AND THEIR TESTS

The study employed the following model to determine whether each of the six independent variables have a significant influence upon farm migration patterns in Georgia:

$$Y = u + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + B_6 X_6 + e$$

Where Y is the county net migration of farm males (the dependent variable) u represents the mean; $B_1 \ldots B_6$ are regression coefficients. $X_1 \ldots X_6$ are independent variables where X_1, X_2, and X_3 are changes in cotton, tobacco, and peanuts acres, respectively, during 1949-1959; X_4 the changes in farm mechanization during 1949-59; X_5 the changes in the off-farm work during 1949-59; and X_6 is the change in gross farm income during 1949-59. The e represents the lack of fit; that is, the failure of the model to represent the true response surface. The study employed the least squares method of solving simultaneous equations to test the six hypotheses. The first three hypotheses state that a decrease in the crop acres of cotton, tobacco, and peanuts would be associated with an increase in net out-migration of farm males. Hypothesis 4 states that an increase in farm mechanization would be associated with an increase in net out-migration of males from farms. Hypothesis 5 states that an increase in off-farm work would be associated with a decrease in net out-migration of farm males. Finally, hypothesis 6 states that an increase in gross farm income would be associated with a decrease in net out-migration of farm males during 1950-1960.

FINDINGS OF THE STUDY

The net migration estimates of farm males reveals that Georgia had a net loss of 285,179 farm males due to migration during 1950-60 (Table 1). Over 30 percent of the migrants from farms were between 20 and 29 years of age. Another 25 percent were between the ages of 10 to 19. Thus, over 55 percent of all farm net migrants were under 30 years of age.

Table 1. Net Migration Estimates of Farm Males for the State of Georgia 1950-1960

Age in 1950	Age in 1960	Net Migration (Number)	(Rate)	Percent of Total Net Migration
0-4	10-14	-35,341	-.56	-12.4
5-9	15-19	-36,222	-.60	-12.7
10-14	20-24	-45,930	-.82	-16.1
15-19	25-29	-43,747	-.87	-15.3
20-24	30-34	-23,550	-.76	- 8.3
25-29	35-39	-16,444	-.62	- 4.9
30-34	40-44	-13,989	-.54	- 4.9
35-39	45-49	-14,005	-.50	- 4.9
40-44	50-54	-13,066	-.51	- 4.6
45-49	55-59	-10,643	-.49	- 3.7
50-54	60-64	- 8,449	-.49	- 3.0
55-59	65-69	- 8,443	-.54	- 3.0
60-64	70-74	- 6,088	-.54	- 2.1
65 and over	75 and over	- 9,262	-.65	- 3.2
Total, All Ages		-285,179	-.64	100.0

Each of the 159 counties of Georgia experienced a net loss of farm males due to migration. Of the 159 counties, nine (Burke, Carroll, Cobb, Early, Floyd, Fulton, Gwinnett, Hall, and Laurens) lost a disproportionately large number which contributed nearly 25 percent of the total net out-migration. In absolute number, this means that there was an average net outflow of 4,100 males from these nine counties. This greater outflow may be due to the fact that six of these nine counties are located in or near the Atlanta Metropolitan Area.

It is interesting to note that out of a total of 159 counties, 78 had a 60 percent or more decline in rural farm males. This decline was concentrated in North rather than in South Georgia and may be attributed to several factors. First, industrialization came in much earlier and also faster in North than in South Georgia. Second, because of relatively poor soils in the North, per acre yields of cotton was low, and this encouraged farmers to retire cropland under various Federal Retirement Programs. Other factors accounting for this disparity between sections of the State were the relatively inefficient and small size of farms and changes in the types of agriculture in North Georgia. This involved shifts from intensive row crops such as cotton to broilers, layers, and beef cattle. In addition, there were increased opportunities for employment in industry, trade, and services offered by the larger urban areas in North Georgia.

The results in Table 2 indicate the order of importance of the six independent variables in the basic model. In all, the model explained 75 percent of the variation in county net migration of farm males during the 1950-1960 period ($R^2 = .75$). The most important variable was the decline in cotton acreages (X_1) in Georgia. About 40 percent of the total variation was explained by this variable alone (Table 3). Between 1949 and 1959, the Georgia cotton acreage declined 917,179 which was associated with a displacement of about 93,550 males from farms (Table 4). Each decrease of 1,000 acres in cotton was associated with a net migration of 102 males from farms during this decade. In addition to the decline in cotton acres, the acreages of these three crops explained over 50 percent of the variation in the out-migration of males from farms (Table 3).

Changes in gross farm income (X_6) were found to be the second most important variable in explaining net migration. About 12 percent of the variation in net migration was explained by this variable. Contrary to the expectation an increase of 10,000 dollars in gross farm income during 1950-1960 was associated with a net out-migration of one male on the farm.

The changes in off-farm work (X_5) during the decade was the third most important variable and explained nearly 11 percent of the variation in out-migration during 1950-1960. Changes in peanut acres (X_3), changes in tobacco acres (X_2) and changes in farm mechanization (X_4) were next in importance. A decrease of one job in off-farm work was associated with a displacement of four farm males; conversely, a similar increase may have attracted four males to the farm. Between 1949 and 1959, the number of farm operators working off their farm (100 days or more) in Georgia declined about 7,200 and this decline was associated with a net out-migration of 28,800 farm males.

Change in farm mechanization (X_4) was related to county net out-migration where an increase of one tractor per 1,000 acres of open land was associated with a net out-migration of 5 males; i.e., one tractor displaced about five males from farms.

Table 2. Analysis of Variance of County Net Migration of Farm Males (1950-1960), Georgia, Using Stepwise Multiple Regression Technique.

Sources of Variation	Degrees of Freedom	Sum of Squares	Mean Square	Calculated Variance Ratio (F)	Cumulative Percent Explained
Total	159	659,575,904.0			
R(u)	1	511,401,258.0			
Total (corrected)	158	148,174,646.0			
R (due to Model/u)	6	111,132,727.0			
Changes in cotton acres (X_1)	1	58,704,897.0	58,704,897.0	240.8**	39.6
Changes in gross farm income (X_6)	1	16,851,702.0	16,851.702.0	69.1**	50.9
Changes in off-farm work (X_5)	1	16,034,136.0	16,034,136.0	65.7**	61.8
Changes in peanut acres(X_3)	1	10,030,968.0	10,030,968.0	41.1**	68.5
Changes in tobacco acres (X_2)	1	5,670,781.0	5,670,781.0	23.2**	72.4
Changes in farm mech. (X_4)	1	3,840,243.0	3,840,243.0	15.7**	75.0
Lack of fit (error)	152	37,041,919.0	243,696.0		

Multiple R - Squared (R^2) = .75

Table Value of F $(1, \infty)$ = 6.63 at .01 level

= 3.84 at .05 level

** Significant at .01 level.

The calculated regression equation is as follows:

$$Y = 1.8494 - .1021X_1 + .001X_6 - 4.4318X_5 - .0785X_3 - .5915X_2 + 5.3509X_4$$

Table 3. Summary Table for Stepwise Regression Showing the Variables Entered at Each Step, R and R^2 Values, at Each Step.

Step Number	Variable Entered	Multiple R	R^2	Increase in R^2 Values	Number of Independent Variables Included
1	Changes in cotton acres (X_1)	.629	.396	.396	1
2	Changes in gross farm income (X_6)	.714	.509	.113	2
3	Changes in off-farm work (X_5)	.786	.619	.108	3
4	Changes in peanut acres (X_3)	.828	.685	.067	4
5	Changes in tobacco acres (X_2)	.850	.724	.038	5
6	Changes in farm mechanization (X_4)	.866	.750	.025	6

Table 4. Decline in Crop Acres and County Net Out-Migration of Farm Males, Georgia, (1950-1960)

Variables	Decrease in Crop Acres	Net Out-Migration Due to Decline in Crop Acres		Net Out-Migration Per 1000 Decrease In Crop Acres
		(Number)	(Percent)	
Changes in cotton acres (X_1)	917,179	93,552	67.5	102
Changes in tobacco acres (X_2)	22,535	13,290	9.6	590
Changes in peanut acres (X_3)	407,712	31,802	22.9	78
Total	1,347,426	138,644	100.0	-

Based on the 99 percent confidence level of F-tests, (Table 2), all six hypotheses were accepted. Therefore, all six independent variables had a significant role in explaining the variation in the county net migration of farm males in Georgia during 1950-1960.

SUMMARY AND CONCLUSIONS

On the basis of the preceding analysis, it can be concluded that the stated hypotheses are not rejected. The decline in cotton acres was the most important variable in explaining the net migration of males from farms, followed by changes in gross farm income and off-farm work. The findings can also be interpreted from the viewpoint of public policy considerations. It is not politically or economically feasible to maintain the present number of farmers in rural areas by increasing cotton, tobacco, and peanut acreages. Likewise, attempts to maintain present levels of rural employment by reducing farm mechanization do not seem justified. However, governmental encouragement of basic non-agricultural and service industries in rural areas undoubtedly would reduce the rate of out-migration of farm males by increasing employment opportunities.

Appendix Table 1. Part I. Estimating Net Migration of Farm Males 10 years of Age and Over in 1960 by Age Cohort, For Appling County, Georgia, Using National Census Survival Rates[a] for 1950-1960 (Forward Survival Procedure).

Age in 1950 Col. 1	White Males 1950 Col. 2	National Census Survival Rates For White Males Col. 3	White Males Expected Survivors Col. 4 (2 x 3)	Nonwhite Males 1950 Col. 5	National Census Survival Rate For Nonwhite Males Col. 6	Nonwhite Males Expected Survivors Col. 7 (5 x 6)	Total Expected Survivors Col. 8 (4 + 7)
0-4	518	1.015046	526	109	1.034043	113	639
5-9	555	0.983957	546	79	0.961046	76	622
10-14	475	0.954888	454	85	0.848364	72	526
15-19	433	0.983693	426	70	0.908123	64	490
20-24	281	1.004066	282	38	0.967367	37	319
25-29	239	0.996207	238	30	0.967246	29	267
30-34	222	0.988334	219	24	0.981098	24	243
35-39	246	0.957672	236	31	0.896155	28	264
40-44	244	0.926786	226	33	0.859920	28	254
45-49	187	0.908087	170	25	0.849159	21	191
50-54	145	0.831232	121	21	0.738835	16	137
55-59	139	0.805722	112	22	0.859080	19	131
60-64	94	0.719278	68	19	0.757957	14	82
65-69	80	0.578121	46	12	0.493253	6	52
70-74	43	0.418877	18	18	0.373951	7	25
75 +	51	0.211582	11	12	0.251655	3	14
Total all ages	3952		3699	628		557	4256

---

[a] National census survival rates for the period (1950-1960) applied here, were taken from Current Populations Reports, Series P.23, No.15, July 1965, Bureau of the Census, Department of Commerce, Washington, D.C.

Appendix Table 1. Part II. Estimating Net Migration of Farm Males 10 Years of Age and Over in 1960 for Appling County, Georgia.

Age in 1950 Col. 1	Age in 1960 Col. 2	Total Expected Survivors (1950-1960)[a] Col. 3	Actual Total Farm Males 1960[b] Col. 4	Net Migration Col. 5 (4-3)
0-4	10-14	639	440	-199
5-9	15-19	622	335	-287
10-14	20-24	526	115	-411
15-19	25-29	490	87	-403
20-24	30-34	319	151	-168
25-29	35-39	267	151	-116
30-34	40-44	243	141	-102
35-39	45-49	264	196	- 67
40-44	50-54	254	200	- 55
45-49	55-59	191	133	- 58
50-54	60-64	137	107	- 29
55-59	65-69	131	78	- 53
60-64	70-74	82	49	- 33
65 and over	75 and over	91	42	- 49
Total, all ages		4256	2225	-2231

---

[a] See Appendix Table 1, Part I, Column 8.

[b] Because data for white and nonwhite farm males were not reported separately for every county in the 1960 Census of Population for Georgia, only the total of farm males (white and nonwhite were taken into consideration for net migration estimates).

REFERENCES

1. Berry, Charles S., "Occupational Migration From Agriculture, 1940-1950" (Unpublished Ph.D. Dissertation, University of Chicago), 35-40, 1956.

2. Bogue, Donald J., Principles of Demography, New York, John Wiley and Sons, 758-759, 1969.

3. Bogue, Donald J. and Others, Sub Regional Migration in the United States, 1935-1940, Vol. I, Studies in Population Distribution, No. 5, Oxford, Ohio, Scripps Foundation, 8-9 and 75, 1957.

4. Boiler, Lloyd H., "The Negro in the Labor Force of the United States," Journal of Negro Education, 22: 297-306, 1953.

5. Bowles, Gladys K., Net Migration from the Rural Farm Population, 1940-1950, Statistical Bulletin, No. 176: 10-15, Agricultural Marketing Service, U. S. Department of Agriculture, June 1956.

6. Burford, Roger L., "Effect of the Cotton Acreage Programs on Out-Migration from Southern Farms, 1930-1940" (Unpublished Ph.D. Dissertation, Indiana University), 64-65, 1961.

7. Cowhig, James D. and Beale, Calvin L., "Socioeconomic Differences Between White and Nonwhite Farm Population of the South," Social Forces, 42: 354-362, 1964.

8. Dillingham, Harry C. and Sly, David F., "The Mechanical Cotton Pickers, Negro Migration and the Integration Movement" (Paper presented at the Annual Meeting of the Population Association of America, Chicago, Illinois), 1965.

9. Dixon, W. J. (ed.), BMD: Biomedical Computer Program, Berkeley, The University of California Press, 233-234, 1968.

10. Ginzberg, Eli, The Negro Potential, New York: The Columbia University Press, 35-40, 1956.

11. Goodrich, Carter, and others, Migration and Economic Opportunity, Philadelphia: University of Pennsylvania Press, 504, 1936.

12. Hamilton, C. Horace, "Population Pressure and Other Factors Affecting Net Rural-Urban Migration," Social Forces, 30: 209-215, December, 1951.

13. Hamilton, C. Horace, "Educational Selectivity of Net Migration From the South," Social Forces, 38: 33-42, 1959; and "The Negro Leaves the South", Demography, Vol. I, 273-295, 1964.

14. Hamilton, C. Horace, "Use of Survival Rate Method in Measuring Net Migration, Journal of American Statistical Association, 39: 197-206, June 1944.

15. Lively, C. E. And Taeuber, Conrad, Rural Migration in the United States, Works Progress Administration Research Monograph, Government Printing Office, Washington, D. C., 73-80, 1939.

16. Martin, Joe A., Off-Farm Migration: Some of the Characteristics and Effects Upon Agriculture in Weakly County, The University of Tennessee, Agricultural Experiment Station, Knoxville, Tennessee, Bulletin, 290, ii-iii, August, 1958.

17. Ravenstein, E. G., "The Laws of Migration," Journal of the Royal Statistical Society, Part I, XLVIII: 162-227, June 1885.

18. Sharma, Prakash C. "Effect of Changes in Land Use, Mechanization and Other Selected Factors Upon Migration From Georgia Farms, 1950-1960", (Unpublished Ph.D. Dissertation, University of Georgia) 1970.

19. Sharma, Prakash C., James D. Tarver and E. Evan Brown, "Farm Manpower Requirements in Georgia, 1960-1970". The University of Georgia, College of Agricultural Experiment Station, Athens, Georgia, Research Report, February 1971.

20. Stinner, William F. and DeJong, Gordon F., "Southern Negro Migration: Social and Economic Components of an Ecological Model, "Demography, 6:455-471, November, 1969.

21. Tarver, James D., Changes in the Arkansas Population, Arkansas AESB Report Series, 21: 8-15, December, 1950.

22. U. S. Bureau of the Census, Current Population Report, Series P. 23, No. 15: 2-3, U. S. Government Printing Office, Washington, D.C., July 1965.

THE RELATION OF THE RURAL CITIZEN TO GOVERNMENTAL AGENCIES AND PROGRAMS

by

Paul J. Jehlik *

The relation of the rural citizen to government agencies and programs, and here we think of government at all levels, is at the heart of a great many benefits accruing to the citizen. 1/ In the search for ways of grappling with the many problems of rural America, one suggested approach is that of improving upon the understanding of the relationship of the rural citizen to governmental agencies and programs. How does he perceive of this relationship? How does he go about making the services and facilities of the agencies and programs available to himself? Does he use the local organizations and organizational structure to accomplish his purpose? Does he see other alternatives for attaining his goals? To what extent is there a meshing of goals and purposes of the agencies and programs with the perceived needs of the rural citizen?

Taking a historical perspective, we see that many programs and services which middle class citizens consider essential come through the action of groups of people or public bodies. This trend has been proceeding generally in the same direction, and largely as a result of new technology and the social demand for new technology. More than a century ago, the main public and institutional services were protection under the law, opportunities for worship, and education for the very young. Over the years, citizens through public and private efforts, have added transportation, various public utilities, natural resource development, protection of many kinds, various educational opportunities, health and social services, recreation, economic development and anti-poverty and housing programs. This trend likely will continue with still more additions. Its rapidity, however, is conditioned in part by the fact that an estimated two-thirds of the rural communities in the U.S. are unorganized or at best are ineffective in developing an opportunity and delivery system that will provide a quality living for the residents of such areas. Thus, the rural social system linked integrally as it is to the total national sociosphere in the provision of various public and private services,

---

* Director, Social Sciences Programs, Cooperative State Research Service, U.S. Department of Agriculture, Washington, D.C. Presented at the annual meeting of the Association of Southern Agricultural Workers in Jacksonville, Florida, February 2, 1971. Views expressed here are those of the author and do not necessarily represent those of the Cooperative State Research Service.

1/ Rural as defined here includes all those populations residing outside of standard metropolitan statistical areas.

contains many dysfunctionalities. These weaken the viability of the rural citizen and of the community to governmental agencies and programs. One inevitable question arises. Is it the social system in these communities or is it the citizens who are responsible for the apathy and perhaps anomie situation which deprives them of the many advantages enjoyed in the more viable areas?

We are aware that the major consequences of the technology explosion has been specialization, large scale production, and improved efficiencies in every phase of our society. We are aware too that for at least the past 40 years the major thrust of American farm policy, for example, has been toward the problem of supply capacity. Concomitant with this, the farm population, for example, between 1940 and 1970, dropped from nearly 31 million to about 10 million. This, along with ebbs and flows of the rural non-farm population representing many millions of people inter-mixing with the remaining traditional rural farm residents has created problems of individual and organizational behavior indigenous to heterogeneous populations.

Within the farm sector, not too many years ago, farmers in a given geographical area had basically the same problems and interest from a production point of view. Today, the specialized livestock feeder has little in common with the specialized grain producer; in fact, there may be conflict between the two. Add to this the problems and interest of an even more heterogeneous rural non-farm population and you have a situation not too unlike that of our cities of perhaps several decades ago.

Now how does the rural citizen perceive his relationship to governmental agencies and programs? We can hypothesize that he sees it as having some of the aspects of a forced relationship. His perceptions perhaps can best be described by cataloging some of his resistances and apathies.

First, it should be mentioned that the transfer of many functions to the public sector has removed some of the incentives and the necessity for citizens in a given local area to work together. It has removed some of the elements of local control and of a participatory democracy. The disappearance of various local institutions represents the loss of an adhesive or cohering factor which tended to keep people in a given locality pulling together.

We have noted a growing opposition in rural areas to financial aid from State and Federal government except for the traditional programs of transportation and the price supported systems to farmers. There has been widespread rejection of proposals that would change the remaining local institutions. Planning and zoning still continue to be almost uniformly rejected in rural areas. There has been tremendous resistance to consolidation of governmental functions. Most recently, we are noting the difference in attitude toward State and Federal support where cities and the larger concentrations of population have been clamoring for financial support from State and Federal governments. This has not been so in the rural areas. In fact, it appears that rural areas are becoming increasingly conservative, not necessarily in a political sense but in an attitude toward institutional change. One might also be led to believe that there has been an intensification of rural fundamentalism. While agricultural fundamentalism has largely disappeared, most people in rural communities still believe, and firmly, that the rural community is a better place in which to live. They believe that they have more of everything that is good. In this sense, one might ask is the typical rural citizen any different than the typical New Yorker, Detroiter, or San Franciscian? All find it difficult to become attuned to a society of large scale organizations, toward the complexes of large scale corporations, and toward government agencies and programs. The typical rural citizen still finds it difficult to comprehend the world-wide markets for beef, soybeans and food grains. These are all beyond the realm of the local community. He finds it difficult, for example, to comprehend decisions made to run either a Federal or State freeway through an area without regard for a local community, for the destruction of housing, for the carving up of farms or the isolation of residents. Similarly, he may find it difficult to comprehend the decisions that led to the location of a dam, or other public facility. This citizen concludes that he cannot control his own destiny. Through his frustration he is led to inquire why greater efforts cannot be made to humanize our social order, meaning why cannot many functions be returned to local control. His perceptions are constrained by his autonomous thought processes, by his protocultural background, and by the fact that he is a product of the most primary of social groups--the family. And, the latter he finds being challenged too.

Now how does the rural citizen go about making the services and facilities of the government agencies and programs available to himself?

Society, once comprised of self-contained and self-sufficient individual units, is now characterized by complex interrelationships at the community, State and Federal levels. Numerous governmental agencies and programs are operating to strengthen and enrich the lives of individuals and families and to make communities more responsive to the needs of their populations. Despite the best of intentioned efforts in the various programs, there are many weaknesses--many of which may be attributed to citizen apathy. The financial and organizational handicaps under which agencies and programs often operate might well be minimized by more public support.

The more aggressive rural citizen likely will seek the support of the local power structure or local governmental structure to intercede for him for various program benefits which he may not be able to obtain alone. The less aggressive will principally hope that things will turn out for the better or , at best, may seek through some form of local group action to obtain the benefit of some special program.

Does the rural citizen use the local organizations and organizational structure to accomplish his purpose?

Programs designed to develop an effective and viable human environment in rural areas can be based on community organization at the local level. Many citizens however, believe that public community programs are imposed on them. As a result, they make little effort to understand how they could influence the direction that programs take. When their influence is felt, it is either by active participation in community organization efforts, by tacit acceptance without involvement, or by vague, critical reaction based on hearsay. Further, varying degrees of this performance is likely to be conditioned by the socio-economic levels of the rural citizenry, and by the occupational and special interest mixes of the citizens. The observation made earlier that only about one-third of the rural communities of the U.S. are effective, functional, viable entities leaves no doubt that a large proportion of rural citizens either do not have an organizational structure through which to satisfy their needs or for one reason or another they do not see fit to use this means of trying to accomplish their purpose. More recent efforts at multi-county area development are posing some interesting problems of citizen participation. The combination of attempted new social structures and the larger area involvement pose both new challenges and opportunities as well as new problems for the rural citizen in terms of his competence for utilizing such structures for attaining his goals.

Does the rural citizen see other alternatives for attaining his goals?

The spectacle of some of the more aggressive and sometimes even violent means used by various groups in seeking their ends is abhorrent to the average rural citizen. He likes to feel independent and at the same time, have the satisfaction of attaining his goals through the usual channels available to him. As is well known, organized farmers have on occasion withheld certain agricultural commodities, sometimes forcefully, from the market. Agricultural labor groups have struck against fruit and vegetable growers. The marked restraint that characterized most of such activity attests to the general conservatism of this group of people. While most farmers, for example, are technologically innovative in production methods, they seem especially inclined to cling to traditional social structures and social performance and action. Other rural residents, many of them formerly farmers or who are closely associated with servicing the agricultural industry likewise tend to cling to traditional ways of attaining their goals.

To what extent is there a meshing of goals and purposes of the agencies and programs with the perceived needs of the rural citizens? An attempt to answer this question easily could involve a lengthy and studied discussion.

Recognizing, developing, allocating and using human and material resources in ways that assist the individual, the family and the community to achieve their perceived goals contributes substantially to satisfaction with living.

A great deal is heard about relevance. There is little doubt that concerted efforts are being made by governmental agencies and programs to be relevant.

It can be safely said that the more socially and economically fortunate rural families, like the less fortunate, are finding their communities, organizations, institutions, public and private agencies, facilities and services inadequate to meet their personal and group needs under the impact of that single constant-accelerating social change. Accepting this premise, we are concluding that all rural people are in serious need of whatever resources may be available to them as they seek to understand and manage their environment and to understand and solve the present and emerging social problems confronting them. This means that those administering government agencies and programs and in their efforts at perceiving the needs of the rural citizen and at the same time those of the total society have a very real responsibility. This is so because: (1) social phenomena, including goal formation, are not only complex but often unstable as seen in the social changes taking place; (2) every pattern or system of human relations is buttressed by powerful sanctions of persons who believe they possess adequate understanding of these relations; (3) every human personality is a stationary phenomena only momentarily--it is a point of reference between memories, conscious of the past, and expectations of the future; (4) there are certain principles or combinations of forces, governing human relations that are as important as those governing the construction of a bridge or breeding plants and animals; (5) many important social phenomena are too complex and too dynamic to be explained, at this point in knowledge and time, with the same degree of exactness as is possible with physical facts; and (6) the behavioral sciences can seldom make accurate predictions but can state alternatives between which agency and program leaders and various other groups should be able to make intelligent choice.

While the foregoing comments do not represent a definitive or exhaustive study of the subject of the relation of the rural citizen to governmental agencies and programs, they do suggest a serious examination of the subject and the critical need for a great deal of research, basic and applied, descriptive and explanatory, micro and macro, discipline and inter-discipline as a means of increasing the integrity of the individual citizen and program and thus reduce the social cost of well intentioned but ineffectual programs and of frustrated citizens. This in no sense depreciates the very fine work that has been carried out through responsive agencies and programs but rather calls for the best of two worlds in agency programming and citizen satisfaction.

SUCCESS: A STUDY OF ANOMIA

Daniel E. Alleger[1]

From our earliest colonial beginnings until recent times the term "rugged individualism" has given solid support to the American doctrine that all men are born free and equal, and that any man can succeed in life if he so wills. Whatever the truth or falsity of this concept, we continue to insist that every American has both the right and the duty to strive for success. Our insistence upon this conceptual obligation may lead either to success or to anxiety and despair. The latter we refer to as "anomia". The term "success" we all understand in some manner or degree.

Success is, in fact, "a general notion that appeals to Americans as part of an ideology" (5, p. 163).[2] The urbanite, who has now become the model for all groups, tends to assume that occupational status and prestige characterizes, to a very large extent, one's success or failure in a competitive world. One indisputable fact is that superior and inferior occupational positions are unequal in number. In addition, since all men are neither innately gifted nor educationally qualified for superior positions success is not, nor can it be, universally attained by all. For some, anomia is one consequence of continued low occupational status.

---

[1] Associate Agricultural Economist, IFAS Agricultural Experiment Station, University of Florida, Gainesville. Paper presented at the 68th Annual Convention of the Association of Agricultural Workers, Jacksonville, February, 1971.

[2] See NOTES for references cited in parentheses.

The term anomia was introduced into southern sociological literature about a decade ago. Here in Jacksonville, at the 1962 Annual Convention of the Association of Southern Agricultural Workers, this speaker presented some preliminary findings on the subject as related to householders in southern low-income rural areas. Subsequent analyses of data obtained from these respondents indicated that anomia was differentially associated with age, education, occupation, family income, net worth, and race, among other attributes (1). Since then a number of findings respecting anomia have been published (3, 4).

Hypothesis, Data, and Methodology

In 1964 Ephraim Harold Mizruchi suggested that "the propensity to fear any alteration in the status quo is widely diffused. ...Any insecurity generates fear. ...The extreme...will be found in the most abjectly dependent classes" (5, p. 120). One may theorize that fear is one strong attribute of anomia, and that the kind of anomia associated with one social class may differ from that associated with another, or from one period of time to another. A point of concern is whether rising expectations increases the propensity of being anomic.

Economic growth and social change are now forcing many individuals to reorient their economic endeavors and philosophic outlook toward national images. As a result, very few people are willing to rationalize and idealize a low-income status. This leads to the hypothesis that anomia and success are inversely related, even in rural areas. That is, the more successful one is in attaining his social and economic goals the less his subconscious feelings of uncertainty and despair.

This hypothesis was tested by regional project S-61 data obtained in 1966 from rural people living in low-income rural areas of Alabama, Mississippi, North Carolina, and Tennessee.[3] The S-61 study was, in part, a resurvey of a number of families interviewed in 1960-61. The Srole anomia scale, of which much has appeared in scientific literature (6), was the basic instrument used to measure anomia both in 1960-61 and in 1966. Guttman-type scoring procedures were applied to individual responses, which produced score values ranging from 0 to 6 (2, p. 39). Scores of 0 to 2 indicated a general acceptance of the existing social order; 3, a "no opinion" position; 4 to 6, anxiety to despair.

A success scale consisting of four components was developed along the lines proposed by W. Lloyd Warner (8). The components used were the (a) education and (b) occupation of the male heads, (c) family income for the year under observation, and (d) home ownership.[4] Both ratings and weights were determined for each component to secure a score value. These values ranged from 08 to 35, or from the bottom to the top rung of success as attained by 389 married rural respondents. The scores yielded four distinct levels of success (Table 1).

Selected Research Findings

The anomia scores obtained clearly indicated that anxiety and despair were more largely a phenomenon of the lower than the upper success classes (Table 2). Further verification of this observation

---

[3] Southern regional project S-61, Human Resource Development and Mobility in the Rural South.

[4] These items were structured into a composite value, and critical changes in percentage occurrences became success-class breaking points. Tests of significance (CR) were made between each and every class, and the critical ratios obtained ranked from 3.15 to 6.17, except for class 2 vs. class 1 for which the CR value was 1.33. This seems to indicate that there is at least a 10% possibility that the placement of an individual in either the upper-middle or upper class may be due to chance.

Table 1.--Rural southern success classes and distribution of sample by class.

Success Class (Number)	Success Class (Strata)	Range of Scores by Class	Distribution Number	Distribution Per Cent
1	Upper	30-35	25	6.4
2	Upper-middle	18-29	175	45.0
3	Lower-middle	12-17	126	32.4
4	Lower	08-11	63	16.2
Totals		08-35	389	100.0

Table 2.--Selected characteristics of heads and homemakers of 389 rural southern families, 1966, included in the analysis of anomia and differential success.

Category	Distribution of Households		Anomia (Ave.)		Average Years of Age		1966 Family Income
	No.	%	Male	Female	Male	Female	($)[a]
Success classes	389	100.0	3.6	3.4	50.1	45.7	3,755
1--Upper	25	6.4	1.8	1.9	41.8	39.8	5,640
2--Upper-middle	175	45.0	3.3	3.0	48.5	44.1	5,240
3--Lower-middle	126	32.4	3.9	3.9	53.7	49.5	2,645
4--Lower	63	16.2	4.5	4.0	50.8	44.8	1,245

[a] Values rounded off to the nearest "0" or "5".

is revealed by Figure 1, which relates anomia to success.[5] Approximately a fourth of all the male respondents were anomic. The range was from none in class 1 to about 45% in class 4.

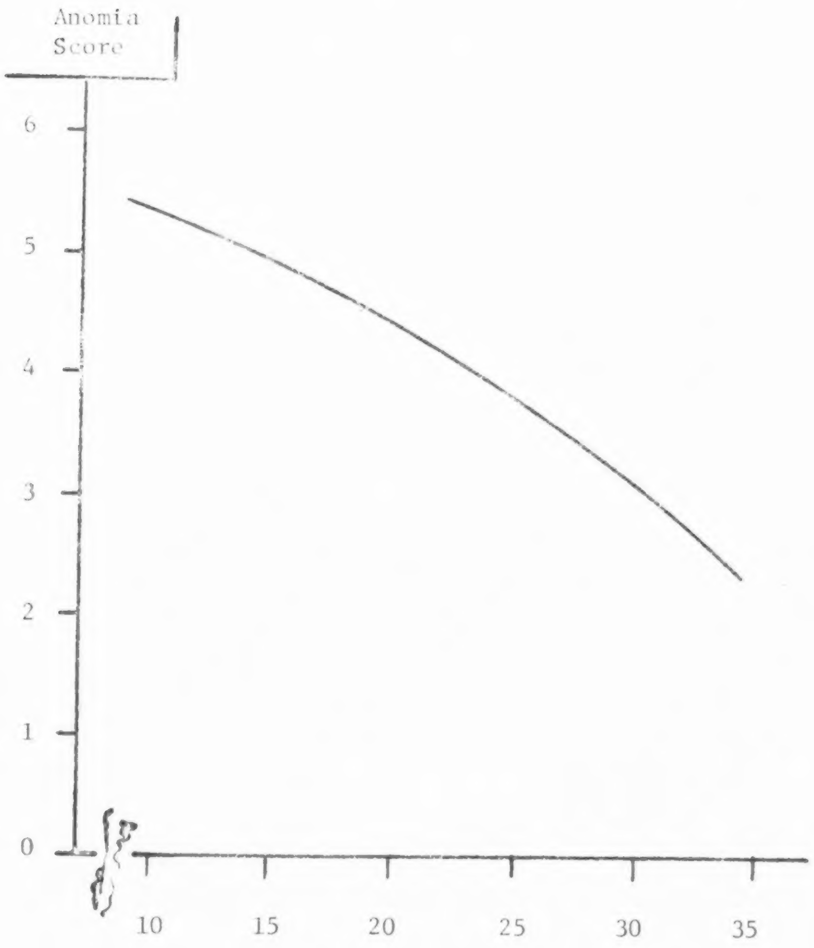
This statement is not intended to infer that no anxiety exists in members of the upper classes. Actually, about 14% of those in class 1 were rated as feeling insecure, as were 42% in class 2, but in classes 3 and 4 attitudes were more sharply polarized. When anomia does appear in members of the upper classes, the cause may be rooted in wordly ambitions; in lower classes, in chronic poverty. This is an oversimplification of observations intended to point out that the causes and consequences of anomia are not uniformly associated with all social classes. A few additional comments may offer some clarification.

The freedom to choose one vocation over another opens increased possibilities in the competitive struggle for life. The main classification of occupations reported by the respondents in this study were: class 1, managers, proprietors, professional and technical workers; class 2, blue collar workers; class 3, farmers; class 4, laborers. The distinguishing feature about the extremes was in the levels of education of the respondents. No male member of class 1 reported less than an 8th grade education, and no male head in class 4 had ever attended high school or beyond. The importance of education in striving for success is clearly depicted in Figure 2.

The variables found to be significantly and directly related to success at the .01 level were the education of the male head, head a nonfarmer by occupation, annual family income in excess of $4,000, family

---

[5] Figures 1 and 2 were plotted output from the Biomedical Computer Program, BMD05R, polynomial regression, version of June 10, 1956, Health Sciences Computing Facility, UCLA.



Success rating

Figure 1.--Graphic exhibit showing the inverse relationship between anomia and success. The most successful respondents (higher success ratings) are projected to be mentally and environmentally adjusted (lower anomia scores), and conversely for the least successful.

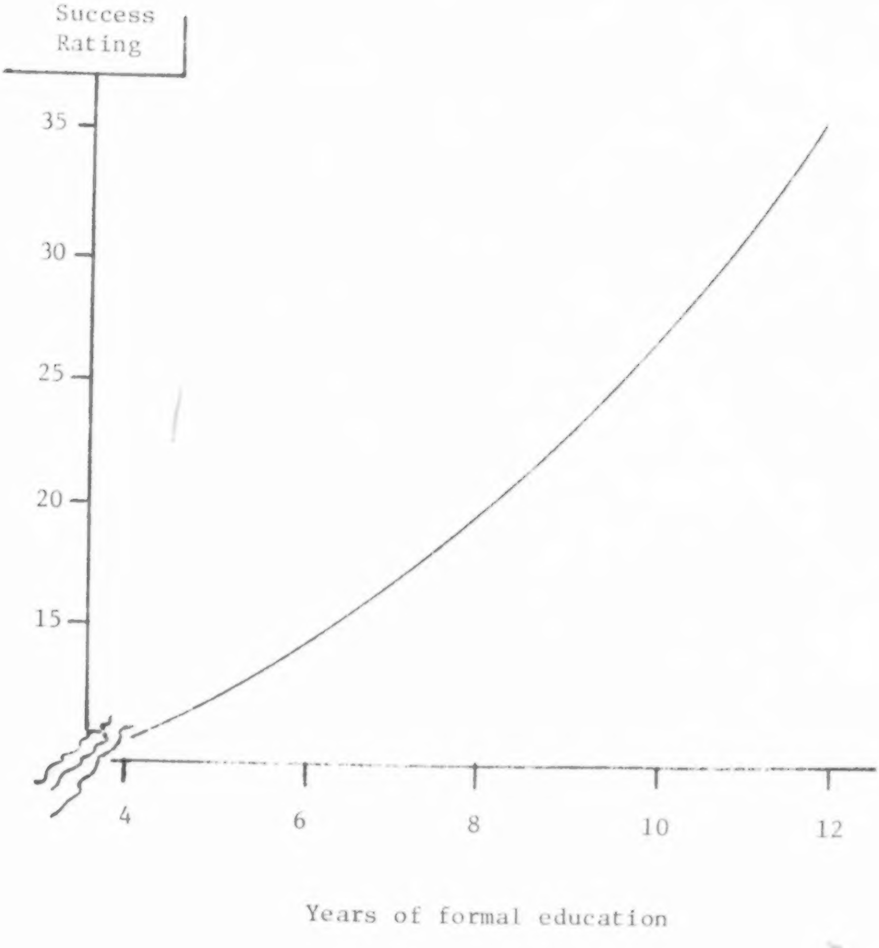


Figure 2.--Depiction of the curvilinear relationship between success and education in selected low-income rural counties of the South.

ownership of home, paved access road to home, and voting in either state or national elections in 1966. In general, these factors were inversely related to anomia (Table 3).

Correlation coefficients were computed to ascertain to what extent anomia was inversely related to success (Table 4). They show that the inverse relationship was greatest in class 4, and smallest in class 1, although all were comparatively low.

Based upon several probing questions regarding adequacies of income, things family goes without, hopes and worries about the future, etc., respondents in success classes 3 and 4 appeared to value security above opportunity. Conversely, risk taking, as shown by changes in employment between 1960 and 1966, was more largely a characteristic of classes 1 and 2 (25% and 17% respectively, as compared to 8% for classes 3 and 4). These data seem to support an observation made by Mizruchi:

> When we add the special ingredient of a promise of success, promotion or advancement, we trigger a special propensity to risk-taking in those in more esteemed occupations, whereas those in the manual classes remain unmoved and stick to security (5, p. 19).

Inferences implicit in this study, although not fully supported by statistical measures, are that the anomia which does occur in members of the upper two classes is related to the disjunction between personal goals and access to opportunity, and to the loss or threatened loss of traditional ideals. If we accept the thought that security is rated more highly than opportunity by the lower two classes, then their anomia arises from different causes. It is here that fear may play a part--fear of loss of employment, fear of residential insecurity, fear of change itself. Again, by examination of the data available, one must assume that the anxiety and despair that is generated in poverty is, per se, a goal blockage.

Table 3.--Regression coefficients of independent variables significantly associated with the anomia of rural southern male family heads; all males in the active labor force.

Item	Independent Variable	Coefficients by Race		
		White	Negro	Both
1	Education of male head[a]	-0.1810*	-0.0791	-0.1533*
2	Education of homemaker[a]	-0.0622	0.1181**	0.0395
3	Complete nuclear family	0.3633	-0.7384	0.5713*
4	Number of persons in household[a]	0.0165	0.1731*	0.0918*
5	Access road to home, unpaved	0.4501*	0.3912	0.4843*
6	Rents home, or free use thereof	-0.0960	1.1550*	0.5749*
7	Length of residence, under 4 years	-0.5341	-0.7174	-0.5417*
8	Occupation, farmer	0.5619*	-0.2808	0.2159
9	Considered changing jobs, 1960-66	0.0003	-1.0478**	-0.1906
10	Held two or more jobs, 1960-66	0.5272**	-0.5801	0.4769**
11	Holds no formal leadership role	0.5320*	0.7023	0.3774**
12	Family income, 1966, $4,000 or less	0.1077	0.8791**	0.3442**
Constant		5.0159	2.8653	2.9181
R^2		0.31	0.32	0.23
Number of families		290	99	389

[a] Quantitative variables; all others are zero-one, or dummy, variables. The regression model contained 25 independent variables considered as possible correlates of anomia, but 13 yielded low levels of significance and are not exhibited above.

[*] Odds are 5 in 100 that the obtained results are due to chance, and ** odds are less than 10 in 100 against chance results. Coefficients not marked are not significant at acceptable levels.

Table 4.--Coefficients derived from correlations between the anomia of male heads and success, according to success classes.

Success classes	Respondents Number	Respondents Per Cent	Correlation Coefficients
All	389	100.0	-.35
1--Upper	25	6.4	-.12[a]
2--Upper-middle	175	45.0	-.22
3--Lower-middle	126	32.4	-.28
4--Lower	63	16.2	-.27

[a] Coefficient not significantly different from zero at the .05 level; all other coefficients were significant at the .01 level.

Concluding Observations

No people in the history of the world has ever been confronted with such enormous social changes as those born shortly after the turn of this century, and vast new challenging readjustments lie immediately ahead. The net result is that the mobility, complexity, and transition in our society has frequently exposed vast numbers of us to economic and social shocks and rebuffs. Although man has always shown a great resiliency for change, this resiliency has always been tempered by the degree to which the attributes of change were incorporated into the social system. The most challenging feature of contemporary life is our incapacity to appraise the future. In the past we had distinct landmarks to guide us, however far out on the horizon. Now we see them less clearly. When man's perspectives are lost, his recognized symbols of life also disappear.

Modern secular life has tended to destroy the external and authoritative control of an agrarian society which, in times gone by, characterized rural southern living. In the process of social change, and before a new social equilibrium is reached, a certain degree of moral and institutional maladjustment prevails, such as we are experiencing today. Our young Americans find it difficult to make life coherent and orderly as old traditions are discarded and new ones sought.

In our new technological age the process of verification provides little leeway for false beliefs which, coupled with the intensity of dynamic change, exposes the individual to many valuation conflicts. Alienation and/or anomia are among the adverse consequences which follow. History, however, suggests that human despair is transitory. This being so, the hope for the future appears to lie in education, the education that brings restraint to angry expressions of competition in human endeavor, the education that provides incentives and opportunity to eliminate, or at least to alleviate, unequal opportunity in America.

NOTES

1. Alleger, Daniel E., and Langham, Max F.: Anomie in Low-Income Areas of the South, Unpublished data, IFAS, Fla. Agr. Exp. Sta., Gainesville, 1965.

2. Alleger, Daniel E.: Anomia and Differential Success, Unpublished manuscript, IFAS, Fla. Agr. Exp. Sta., Gainesville, 1971.

3. Boyd, Virlyn A., and Morgan, Carolyn A.: Synthesis of Findings from Southern Regional Cooperative Research Project S-44: Factors in the Adjustment of Families and Individuals in Low-Income Rural Areas of the South, S. C. Agr. Exp. Sta., Clemson, March 1966.

4. Cleland, Charles L.: Scaling Social Data, Tennessee Agr. Exp. Sta., SCS Bull. 108, 1965.

5. Mizruchi, Ephraim Harold: Success and Opportunity: A Study of Anomie, (London: Collier-McMillan, Ltd., 1965).

6. Srole, Leo: "Social Interaction and Certain Corollaries: An Exploratory Study," American Sociological Review, (December, 1956), pp. 709-716.

7. Taylor, Lee: Occupational Sociology, (New York: Oxford University Press, 1968).

8. In Warner, W. Lloyd: Social Class in America, (Chicago: Social Science Research Associates, 1949), pp. 122-185, a methodology for constructing a success scale is described.

A RURAL EMERGENCY MEDICAL SERVICES PLAN

Abstract

American citizens are paying too high a price for the limitations of effective emergency care. With the situation in rural communities generally much more critical than urban centers, the American Medical Association's Council on Rural Health proposes a five-point program for improving emergency medical services in rural areas as follows:

1. Rural communities coordinate their efforts with adjacent towns in analyzing existing patterns of response to medical emergencies.
2. Rural and urban communities institute a medical service area program for emergency medical transportation facilities and health personnel.
3. Rural and urban communities, where possible, adopt the model ambulance ordinance to give the public a greater voice in the quality of ambulance care.
4. Rural and urban communities provide a program of advance Red Cross first aid instruction for the non-medical people most frequently called in rural emergencies--especially police, sheriffs, and ambulance crews.
5. Rural and urban communities develop a continuing campaign directed toward first aid instruction for rural families, and particularly young people.

The long-term goal in first aid training is to have at least one member of every rural family trained in first aid procedures.

The basic objectives of the program are:

1. To foster safety consciousness through education and training in first aid.
2. To prevent, insofar as is possible, the occurrence of accidents and the suffering and loss of life attributable to them.
3. To orient every farm and rural family with respect to proper first aid procedures, especially those relating to serious accidents and life saving techniques, until medical services can be obtained.

COUNCIL ON RURAL HEALTH
AMERICAN MEDICAL ASSOCIATION
535 NORTH DEARBORN STREET
CHICAGO, ILLINOIS 60610

A RURAL EMERGENCY MEDICAL SERVICES PLAN*

The premise is well established that American citizens are paying too high a price for the limitations of effective emergency care. Accidents are the leading cause of death among persons between 1 and 44; and they are the fourth leading cause of death at all ages. Among accidental deaths, those due to motor vehicles constitute the leading cause for all age groups under 75. Seventy percent of the motor vehicle deaths occurred in rural areas and in communities with populations under 2,500.

The tragedy of the high accidental death rate is that trauma kills thousands who otherwise could expect to live long and productive lives, whereas those afflicted with malignancy, heart disease, stroke, and many chronic diseases usually die late in life.

In a recent publication prepared by the National Research Council entitled "Accidental Death and Disability: The Neglected Disease of Modern Society," current practices and deficiencies in most levels of emergency care are summarized in the introduction as follows:

> The general public is insensitive to the magnitude of the problem.
>
> Millions lack instruction in basic first aid.
>
> Few ambulance attendants, policemen, firemen, and paramedical workers are adequately trained in advanced life-saving techniques.
>
> Local political authorities have neglected their responsibility to provide optimal emergency medical services.

---

*Address by Bond L. Bible, Ph.D., Secretary, Council on Rural Health, American Medical Association, Southern Agricultural Workers Association Annual Meeting, Jacksonville, Florida. January 31 - February 2, 1971.

Research on trauma has not been supported.

Emergency departments of hospitals often leave a great deal to be desired.

Farm Accidents

Several thousand farm residents die in farm, home, and highway accidents each year. Many hundreds of thousands suffer disabling injuries and are often permanently crippled. The human and economic costs are enormous. This is why farm leaders are so concerned about accidents, why they often ask for help in the big job of preventing accidents.

The farm has many hazards. The entire farm family, because it lives on the work site, is exposed to farm or farm-work dangers. Farmers must operate many kinds of machinery and handle may different jobs requiring a variety of skills.

Accidents are important to a farm family because emergency medical care services often are inadequate in rural communities, and may be many miles away. Arrival can be delayed by bad roads, snow, or mud.

Severe injuries often occur to farmers when they are working alone and unable to let someone know of their plight. Delays in getting medical help can mean death or permanent disability from otherwise minor injuries. In contrast, an injured industrial worker recieves medical attention moments after an accident.

In addition to daily use of safe practices and having safety devices such as fire extinguishers and tractor operator overturn protection, farm people should know how to administer first aid and mouth-to-mouth resuscitation, have a fire escape plan, and be prepared for other possible emergencies such as blizzards, tornadoes, and floods.

No safety consultant helps the farmer nor is he required to follow safety rules. In the factory or office, the boss or a safety supervisor sees to it that each is trained for his job, that machines are properly guarded, and that everyone works safely. It is much easier to keep the number of accidents low in places where the work habits and work areas can be checked often. Thus, industry and business (except mining and construction) have a much better safety record than does agriculture.

Rural Emergency Medical Services Plan

With the situation in rural communities generally much more critical than urban centers, the American Medical Association's Council on Rural Health proposes a five-point program for improving emergency medical services in rural areas.

The program is the first step in a larger AMA project to insure excellence of emergency services nationwide.

As outlined by the Council, the program in particular stresses wider first aid training for rural Americans and swifter handling of emergency victims.

A study of rural and urban traffic fatalities in California showed that one and one-half times as many people were injured per 1,000 population in traffic accidents in rural counties (under 50,000 population) as contrasted with urban counties (over 500,000 population) and that people injured in rural counties were almost four times as likely to die of their injuries as those injured in urban counties, despite the occurance of less severe accidents and more survivable injuries.1/

The higher case fatality ratio in rural areas seemed to be related to the inability to provide adequate first aid procedures and to get the person to a hospital within a reasonable period of time.

Emergency medical transportation and first aid care arrangements are also important to farm families because 760,000 farm people are disabled every year in accidents on the farm.

1/ Julian A. Waller, MD, "The Control of Accidents in Rural Areas," Proceedings of the 19th National Conference on Rural Health. AMA: Chicago, 1966. p.32.

The Council's program, approved by the AMA Board of Trustees, urges that:

1. Rural communities coordinate their efforts with adjacent towns in analyzing existing patterns of response to medical emergencies. This must be done by each community individually, since urban and rural areas will have different problems. Bottlenecks and poor communication patterns may occur in different places. Particular isolated stretches of roadway or waterfront may have so many accidents that it is worth installing telephones or first aid supplies, or providing first aid training for residents or workers in these areas.

2. Rural and urban communities institute a medical service area program for emergency medical transportation facilities and health personnel.

3. Rural and urban communities, where possible, adopt the model ambulance ordinance to give the public a greater voice in the quality of ambulance care. (The ordinance proposes standards for ambulance equipment, personnel and operation, liability insurance requirements, maintenance of records, duties of regulatory agencies, and penalties to be imposed if the ordinance is disobeyed.)

4. Rural and urban communities provide a program of advance Red Cross first aid instruction for the non-medical people most frequently called in rural emergencies -- especially police, sheriffs, and ambulance crews

5. Rural and urban communities develop a continuing campaign directed toward first aid instruction for rural families and particularly young people through the schools, youth organizations, and other educational channels.

Rural First Aid Training

The long-term goal in first aid training is to have at least one member of every rural family trained in first aid procedures.

The basic objectives of the program are:

1. To foster safety consciousness through education and training in first aid.

2. To prevent, insofar as is possible, the occurrence of accidents and the suffering and loss of life attributable to them.

3. To orient every farm and rural family with respect to proper first aid procedures, especially those relating to serious accidents and life saving techniques, until medical services can be obtained.

The following points were agreed upon by organizational leaders concerned with a stepped up emphasis on first aid instruction:

1. It will require a long-term and continued campaign for organizations and agencies to participate effectively;

2. The campaign should be geared to grass roots development by committees of local leaders at the county or district level;

3. The function of a first aid committee is primarily to develop instructional and service responsibilities of the first aid program to the fullest extent, to plan the activities well, and to use the services of volunteer workers efficiently. The need for a committee is indicated by the fact that the scope of the program is far too great for one person to undertake alone. The varied activities included in the committee's operation demand knowledge, time, and effort of a truly representative group. The Committee should not be content merely to respond to requests for service but rather should create a demand for training and services;

4. The approach is to have recognized first aid courses taught by experienced instructors as part of the regular ongoing programs of participating organizations;

5. Rural news media can provide effective communications aid;

6. Many organizations which involve rural people, and particularly rural youth, can be involved; and

7. Greater effort must be made to provide materials and methods to reach low income families including migrant workers in a first aid program.

Implementation of the Plan

A community or medical service area should utilize some organizational framework, either one already existing or formation of a new one, which can coordinate all the components of the emergency medical service system in that geographic area. Such an organizational structure must assure the community's citizens:

> That they are being provided with the most up-to-date methods of first aid and emergency care which can be given by a layman, an ambulance attendant, a policeman, or a physician.
>
> That the vehicles they will be transported in will be the best staffed and best equipped possible.
>
> That emergency communications will assure them quick response when they are ill or injured, both in discovery and treatment.
>
> And, finally, that the personnel and equipment in their emergency

facilities assures them the highest quality of medical care.

Physicians and health workers have long recognized the need for community health planning to prevent pragmentation of services, needless duplication of services, and waste of money, not to mention the need for efficient utilization of the services of health manpower and facilities.

Planning is essential for developing comprehensive personal health services including emergency medical services in a community. A community is used to describe a geographic area within which a health problem can be defined and dealt with, and within which the community or communities can draw every service needed.

By combining resources and efforts in larger and more functioning groupings rural and small urban communities--comprising a population base large enough to support a full range of efficient and high quality emergency medical services and facilities--can achieve the conditions necessary for effective community health planning.

The dimensions of an area within which residents should join to carry out integrated planning are likely to be already marked by the trading or community patterns that have been drawn by rural and city residents together--as they drive to work, to shop, to college, to visit, to recreation and cultural facilities.

All organizations and agencies which can contribute to the emergency system should be represented on the coordinating body. The following should be represented for most communities:

Medical

Local health departments

Area hospital administrators

Red Cross chapter

Fire and police

Traffic or highway safety groups (if applicable)

Providers of ambulance services

Public health agencies

Health planning agencies (if applicable)

Local government

Women's groups

Voluntary health organizations

Farm organizations

Civic bodies

I'm sure there are many others that you can think of in your own communities --a representative of your school board, perhaps, to discuss teaching first aid courses on a basis similar to driver's education; perhaps a representative of local industry who is concerned about the health and welfare of his employees; perhaps an insurance executive; or a member of the press.

I should like to point out here that the geographic boundaries for the coordinating organization may well be county wide boundaries for certain smaller communities and even regional boundaries for sparsely populated rural areas.

The organization's work must begin by evaluating the present emergency medical services in the community it serves. This may very well be the most important element if the program is to be successful.

The U.S. Public Health Service has provided a guide for analyzing a community's emergency medical services. This checklist asks detailed questions on such items as ambulance services including:

Organization

Area served

Services performed

Personnel and their training

Vehicles used

Kinds of equipment used

Types of communications utilized

Relationships with hospital facilities

Records kept

Financing

Types of calls

General evaluation

A similar detailed checklist is available for emergency facilities and their organizations. In some communities, such an evaluation of present conditions would take only weeks, for many it might take months. But regardless of time it is the necessary first step.

Next, the organization must turn to what is presently available to help them improve those deficiencies their community evaluation turned up.

What are the models and guidelines that can aid the organization?

What are the best training programs for teaching youngsters and adults in the community basic first aid?

What training manuals should be utilized to teach paramedical personnel sophisticated life-saving techniques?

Who will train these people?

What standards should be adopted regarding ambulance services?

What is the minimal equipment an ambulance should contain?

What model ambulance ordinances should be proposed?

Where will the manpower be found?

What are the best communication systems available to:
1) allow an attendant to prepare a hospital emergency department for a particular injury or mass disaster;

2) allow a physician to give instructions to an attendant in order to save a life; and

3) make sure that a person injured in some desolate area doesn't remain trapped and undetected for hours?

What equipment is necessary for hospital emergency facilities?

What standards of care should be recognized?

Have the physicians of the community been given the proper education and training in their medical schools, their internships and residencies, and continuing education programs?

These are the questions that must be asked and studied. With the advent of new research in trauma and in other components of the emergency medical services system, the coordinating organization will be faced with continuing education, evaluation, research, and implementation of the highest standards.

General Recommendations

Workshop recommendations from AMA's Conference on Emergency Medical Services gives us some general guidelines on four phases of the emergency system.

1. For first aid these recommendations:

   A. All segments of the public should be trained in Red Cross standard first aid, or equivalent.

      a. Training should be part of the curriculum of elementary and secondary schools, particularly in Driver's Education programs.
      b. First aid training should be encouraged for adult programs.

   B. Advanced first aid training should be required for all police and fire personnel.

   C. All ambulance attendants should be given a minimum of advanced first aid training and additional training in specific emergency medical care. Annual refresher courses should be given ambulance attendants.

   D. Local medical societies should offer assistance and advice to local Red Cross chapters, police and fire academies and any other parties involved in teaching first aid.

2. Communications

   A. A nationwide emergency telephone number should be established which would alert a major emergency medical center.

   B. Emergency communications shall include but not be limited to the 24-hour capability:

a. to provide central dispatching
b. to direct 2-way communications between emergency vehicles and emergency facilities
c. to have flexibility to handle emergencies of any magnitude
d. to provide 2-way communication between physicians and emergency facilities
e. to provide 2-way communications with law enforcement agencies

C. A signaling device for automobiles and other vehicles should be developed to indicate the existence of an emergency situation and the need for assistance.

3. Transportation

A. The minimum equipment for ambulances as specified by the American College of Surgeons should be accepted with certain additions including antidotes for poison control.

B. Every ambulance should have at least two persons both fully trained available for on-the-scene- care and care enroute to the hospital.

C. Specific courses in defensive driving should be required for all personnel driving emergency vehicles.

D. The Committee on Emergency Medical Services should endorse and promote a model ambulance ordinance.

E. Occupations of ambulance driver and attendant should be developed to a "career status" to enhance recruitment and stability.

F. Ambulances should be called "Medical Response Units" since there could be a variety of vehicles for transporting patients.

4. Emergency Facilities

A. New patterns of medical care especially in the emergency department emphasize the need for the use of triage officers in that area to separate the non-urgent patient from the true emergency.

B. Hospital emergency departments should be evaluated in terms of its facilities, personnel, and services.

C. A committee of the hospital medical staff should be responsible for continuous review of the emergency department services--equipment, facilities, procedures and records--so as to assure optimal medical care.

Looking Ahead

Accidental death and disability is the neglected disease of modern society.

Emergency care of all types has been poorly organized. As we look into the

the future in the changing rural community, we can visualize the team approach for providing emergency medical services.

Since World War II, emergency departments are no longer merely accident rooms, primarily for indigent care. They are serving all types of emergency victims in all economic spheres of American life. Too often, however, they are small, inadequately designed, and inadequately furnished. Wings need to be added to hospitals; highly specialized equipment must be added; specialized, expert medical and paramedical personnel must be available 24 hours a day, 7 days a week to provide emergency evaluation and, when necessary, care to every individual who judges himself in need of emergency care. The expense alone would require a regional approach.

Accidental death and disability must not remain the neglected disease of modern society nor must its counterparts in other emergency spheres. Extrication, first aid and transportation must not be relegated to the untrained. The emergency victim need not be brought to the hospital unannounced. Emergency care must not be assigned to the intern or to his non-medical substitute. Nor must it be delegated to a remote control committee. Emergency care must be provided with good facilities and a good staff.

Need 107,000 Americans die of accidents and more from heart attacks each year? Need 400,000 suffer permanent disability each year? Need man in "crisis" be synonymous with man in "chaos"?

The answer, I believe, is "No." We have the capacity for better care.

ld-12/3/70

UNITARY SCHOOL SYSTEMS: ONE RACE OR TWO?*

by

James M. Palmer, Sr.
Mississippi State University

INTRODUCTION

The Problem Focus

Reacting to the Supreme Court's famous 1954 "Brown" decision and the 1964 Civil Rights Act, prophets of doom foretold the demise of public schools in the South. Six states immediately adopted plans for state-wide private school systems[1], others provided grants and loans to children in private schools. With this legitimization private schools, characteristic of the Northeast, began to blossom over the South like daisies. In 1964, alone, the State of Mississippi granted 23 charters to private educational foundations.

As desegregation progressed white flight began. In the words of news columnist Kilpatrick (1970:611) it was "back to segregation by order of the courts." The term "resegregation" was coined to describe the phenomena. A unitary system would indeed be unitary - all black - or so it seemed. This paper focuses upon resegregation and the development of private schools in one Southern state, Mississippi. It is a secondary analysis of some data from the author's dissertation research.[2]

Basically descriptive in design, this study relates variables by simple cross tabulation. The only statistic employed is chi square.[3] No control variables are utilized. The degree of desegregation of public schools in Mississippi as of September 1970 is set forth along with types and degrees of resegregation. The flight of the whites is documented and the emergence of private schools analyzed. Demographic, socioeconomic and school-community variables are related to the private school movement. The future of the movement is assessed.

---

*A paper presented to the annual meeting of the Association of Southern Agricultural Workers, Jacksonville, Florida, February 2, 1971.

[1] Alabama, Arkansas, Georgia, Louisiana, North Carolina, and Virginia.

[2] Mississippi School Districts: Factors in the Disestablishment of Dual Systems to be completed May 1971.

[3] When the expected frequency of any cell fell below 10 then a correction for continuity was used.

Data Sources

Three major sources of data are tapped. Questionnaires were mailed to 147 District School Superintendents with a 95 percent response rate. School enrollments by race for 1970 were furnished for 90 percent of the districts by HEW along with compliance status reports. The 1960 U.S. Census and other statistical publications were used.

A UNITARY SYSTEM

Unfortunately, the courts did not define a unitary system and confusion reigned. When was a system unitary? Was racial balance necessary among the schools? Henderson (1969:8), Chief of HEW's office for Civil Rights, stated, "Generally speaking, when one enters any school in the district for observation purposes, he would be unable to determine if the school had previously been all Negro or all white." Racial balance was obviously to be the yard stick.

How Unitary are the Systems?

Only two of Mississippi's 150 school districts are not desegregated. These are all-black districts: one serves an all-black community; the other resulted from resegregation. There are 25 districts, however, that have one or more all-Negro schools and thirteen districts that have one or more all-white. Sixty-four districts have one or more schools with a ratio of Negro to white pupils that is 10 percent or more greater than their district ratio. Table 1 provides a breakdown of these schools. Only three districts have both all-white and all-Negro schools. All-white schools tend to be located in districts with a relatively low percent Negro (4-66%), while all-Negro schools tend to be located in districts with a higher percent (33-100%). Those with both types are located in a middle range (47-66%).

Table 1. Degree of Remaining School Segregation in Mississippi Schools

Type of segregation	Number of schools	Enrollment	% of total enrollment for race
All-Negro	58	28,044	11%
All-White	22	6,310	2%
Higher % Negro than District	194	78,985	31%*

*Percent of total school enrollment for both races.

Actually, ninety-three percent of all public school pupils are attending desegregated schools.[4] Eighty-nine percent of Negro pupils and ninety-eight percent of white pupils are in racially integrated situations. It appears that the unitary system in Mississippi can be a bi-racial system.

While faculty integration is nearly complete, a study by Clark and Ward (1970) has shown that hiring practices in Mississippi favor the white teachers and black administrators are being phased out. In almost every instance the ratio of white teachers to black is higher than the ratio of the student body. My own study has found ratio differences up to 40 percent.

Resegregation: Fact or Fiction?

A number of studies have indicated the circumstances under which resegregation would occur (Stinchcombe, et al., 1969; Hall and Gentry, 1969; Bolner, 1968). Four basic types of resegregation may be identified: intra-school, inter-school, inter-system, and extra-system.

Intra-school resegregation may result from policies on the part of the administration, or, more subtly, by actions of the staff and student body. Segregated classrooms within a desegregated school, whether arbitrarily done or achieved through some tracking system, carry the same stigma. Tracking systems are being used in most districts. Segregation of activities due to the ostracism of blacks by white students and staff is giving way. Pupils, more than the administrators, are achieving integration of the student body. Changes in playground interaction can be noted. Homecoming courts, cheer leaders, bands, football squads and other activities are being desegregated.

Inter-school resegregation occurs when a desegregated school begins to return to a segregated status through a shift in racial balance between schools. One study (Stinchcombe, et al., 1969) noted a racial tipping point beyond which the process is accelerated. Changing residential patterns can cause resegregation over a period of time. Resegregation has also occurred where zoning was the desegregation plan as whites either moved or fictitiously took up residence in another section of town to prevent their children from attending a formerly all-Negro school or to permit them to attend a school with a more favorable racial balance.

Inter-system resegregation, like inter-school, occurs when white families either move or attempt to establish a fictitious residence. Many parents living in a county with a higher percent Negro than the local municipality attempt to send their children to the municipal schools. But the courts have blocked such inter-system transfers. Falsification of residence or movement into town has resulted. Many families in counties with a high percent black moved into nearby counties with a lower percentage or sent their children to board with relatives or friends to escape predominately Negro systems.

---

[4] Based on 90 percent of the districts reporting or a total of 137 districts.

Extra-system resegregation occurs when parents take their children out of the public schools. Since Mississippi does not have a compulsory school attendance law,[5] some parents, both black and white are keeping their children out of school. White parents, however, have in the most part enrolled them in private schools. The decline in public school enrollment from 1969 to 1970 was 41,163. A drop of 6,450 was recorded for the previous year.

The effects of inter-school, inter-system and extra-system resegregation are the same - a diminished degree of desegregation. Table 2 shows that an increase in percent Negro has occurred in most of the school districts. The greatest increase occurred mostly where there was already fifty percent Negro or greater.

Table 2. Change in Percent Negro from 1968 to 1970 in Mississippi School Districts

Percent Negro of 1968 district enrollment	Number of Districts with degrees of change in % Negro				
	Decrease in % Negro	0-.9% Increase	1-9% Increase	10-30% Increase	Total
1 to 49%	21	15	30	6	72
50 to 100%	6	2	24	33	65
Total	27	17	54	39	137

$X^2 = 38.30$; df = 2; $p < .001$.

DUAL SYSTEMS EMERGE

Miller (1957:4) wrote, "Private, i.e., nonpublic, education has long held an important place in the scheme of American education." However, in the South, and Mississippi in particular, private schools have not been a major factor in education. In 1960, Mississippi had less than five percent of its school children in private schools (U.S. Census Bureau, 1961:S47). Lovejoy, in 1963, listed in his Prep School Guide (1963:74) only 12 private and parochial schools in the state. In 1964 there were only three non-sectarian private schools in operation. Today there are 236 private schools in the state (see Table 3).

Types of Private Schools

Fichter (1963:428-429) classified private schools into parochial, characterized by religion, and private schools, characterized by social

---

[5] The law was repealed in 1964.

Table 3. Private Schools and Segregation Academies in Mississippi

Type of School	Total Number of Private Schools		Segregation Academies	
	Number	Enrollment	Number	Enrollment
Non-Church Related	135	46,881	132[a]	46,268
Catholic	53	13,436	b	
Episcopal	6	1,674	b	
Presbyterian	5	1,117	3[b]	823
Baptist	13	3,879	13	3,879
Other Faiths	8	840	8	867
Non-classifiable	7	1,972	7	1,972
State and Federal supported Non-Public	9	2,220	c	
Totals	236	72,019	162	53,809

[a] Two all-Negro schools and one predominantly Negro are omitted.

[b] Catholic, Episcopalian, and two Presbyterian schools have been omitted because they have strong anti-discrimination policies.

[c] State and Federally supported non-public schools such as schools for blind, deaf, Indians, special education, etc., have also been omitted.

class. The recent Southern phenomena does not fit Fichter's simple dichotomy. The so-called "Segregation Academies" are not the expensive preparatory schools that Fichter described nor are they free from religious influences. The right to "pray in school" is as much a shiboleth of the movement as the right to "choose one's own company" even though the basic rationale is segregation.

In discussing the Southern private school movement it is necessary to separate the truly parochial type from the newer private and religious enterprises. Fifty-three Catholic schools, six Episcopal and two Presbyterian schools in the state meet Fichter's criteria and differ from the segregation academies in that they have strong policies against discrimination. They also differ in showing a decline in enrollment. For example, in 1964 there were 56 Catholic schools with an enrollment of 16,622. By 1970 the enrollment had declined to 13,264 and three schools had closed - all of this at a time when segregation academies were booming.

Growth of Segregation Academies

From 1964 to 1970, Mississippi granted 158 charters to private educational foundations, not to mention the many "church schools." While not every foundation became functional, 163 segregation academies are operating in sixty-six counties with an enrollment of 54,037 (see Table 3). In 1966[6] there were 23,586 enrolled in the private schools of Mississippi. The greatest gains were during the Fall of 1969 and the Spring and Fall of 1970 (see Table 4). Even though the growth has been phenomenal, all of the private schools in the state account for only 11.8 percent of the total number of school children in Mississippi, with segregation academies enrolling only 8.8 percent.

Table 4. Enrollment Gains in Private Schools in Mississippi, 1966-1970*

Year	Number of Schools	Enrollment	Gain	
			Number	%
1966-67	121	23,586	X	X
1967-68	129	24,227	641	2.7
1968-69	133	22,093	-2,134	-8.8
1969-70	188	46,981	24,888	112.6
1970 (estimate)	236	72,019	29,762	53.2

*1966-1969 figures taken from Nonpublic Schools, State Department of Education, Division of Administration and Finance, Jackson, Mississippi for respective years. 1970 estimate based on 86 percent of the schools reporting and a projection of the category means for the others.

FACTORS RELATED TO THE DEVELOPMENT OF PRIVATE SCHOOLS

The Southern private school movement is an act of resistence to desegregation steming from the same sense of frustration as Wallace's school-door stance. It is the "Southern Belle" of the resistence movement sired by the same cultural values that nourished the ideology of white supremacy. Therefore, variables related to desegregation should prove helpful in understanding the emergence of segregation academies.

Demographic and Ecological Variables

Four demographic and ecological variables were considered to be relevant; size, percent nonwhite, percent rural and degree of industrialization. Size seems to be the most important variable in determining how many private schools were established in an area. Larger populations are needed to furnish the clientel. Size was also significantly related to whether a private school came into existence. Sixty-nine percent of the districts that had one or more related private schools were in areas of more than 9,000 population. On the other hand, 57 percent of the districts that did not have related private schools had populations under 9,000.

Perhaps the strongest factor in both the desegregation process and in the emergence of private schools is that of the percent Negro of the population. Two measures, percent nonwhite of counties and percent of the school district's population of school-age that are nonwhite, demonstrate the significance of this variable (see Table 5). A positive correlation appears in both.

Table 5. Measures of Percent Nonwhite related to Private Schools

Percent Nonwhite of School Districts for two Populations	Districts with Related Private Schools		Total
	None	One or More	
Percent Nonwhite of total Population of area			
Upto 30 percent	12	12	24
30 percent and above	2	55	57
Total	14	67	81
$X^2 = 22.70$; df = 1; $p < .001$			
Percent Nonwhite of School age Population in the area			
Upto 40 percent	21	38	59
40 percent and above	2	86	88
Total	23	124	147
$X^2 = 27.05$; df = 1; $p < .001$.			

While the percent rural was considered to be an important factor, the measure of this relationship failed to prove statistically significant. This relationship can better be seen in the two measures of industralization (see Table 6). An index of change from agriculture to manufacturing from 1940 to 1960 reveals that the counties with a lower index score were more likely to have private schools. The same holds true for a ratio of employees in manufacturing per 1000 population. The lower ratio counties were more likely to have a private school than those with higher ratios.

Table 6. Measures of Industrialization Related to Private Schools

Measure of Industrialization	Counties with Private Schools		Total
	None	One or more	
Index score of change from agriculture to manufacturing; 1940-1960			
Upto 80	10	58	68
80 and above	4	9	13
Total	14	67	81
$X^2 = 9.42$; df = 1; $p < .01$.			
Ratio of employees in manufacturing to 1000 population			
Upto 6.5	8	44	52
6.5 and above	6	23	29
Total	14	67	81
$X^2 = 7.14$; df = 1; $p < .01$.			

Socioeconomic Variables

Two measures were used to tap the socioeconomic dimension (see Table 7). The first was a measure of equality of opportunity. This index was derived by comparing SES scores developed by Bryant (1966:8) for both races. Those counties where the discrepancy between the scores was high tended to have private schools more than counties where the discrepancy was low. A measure of the education differential between the races demonstrated a similar positive relationship. Median education for non-whites was subtracted from whites (U.S. Bureau of the Census, 1961:173-179, 201-207). Where the differential was great the counties tended to have private schools in contrast to counties with lower differentials.

School and Community Variables

The original study from which these observations are drawn looks at desegregation within the community context and focuses upon the dynamic of school-community interactions. A number of variables are therefore available related to this nexus.

Prior to the desegregation of public schools in an area the constituents had a number of potential sources for exposure to desegregation

Table 7. Socioeconomic Variables Related to Private Schools

Indices	Counties with Private Schools		Total
	None	One or more	
Equality of Opportunity Index			
17.0 and above	3	62	65
Upto 17.0	11	5	16
Total	14	67	81
$X^2 = 39.26$; df = 1; $p < .001$			
Educational Differential Index			
3.5 and above	4	56	60
Upto 3.5	10	11	21
Total	14	67	81
$X^2 = 24.75$; df = 1; $p < .001$.			

experiences, both their own and that of others. Among these were the desegregation of other institutions in the area and the desegregation of adjacent school districts (see Table 8). Where opposition to desegregation of other institutions was strong there was also a greater tendency to establish private schools. Likewise, when opposition to desegregation of adjacent school districts was strong, private schools were more likely to emerge.

Civil rights organizations actively promoted the desegregation of the schools in some areas. Where there were two or more action agencies in a district promoting desegregation there was a greater tendency to establish private schools (see Table 9).

It was assumed that the earlier a district desegregated the less information the constituents would have about the consequences of desegregation and the greater their opposition to desegregation would be. This should tend to encourage the establishment of private schools. Those districts which desegregated prior to 1968 did have the largest percentage of private schools although the X^2 value falls a little short of the .05 level. Opposition to Negroes entering formerly all-white

Table 8. Exposure to Desegregation Related to Private Schools

Types of exposure to Desegregation Experiences	Districts with related Private Schools		Total
	None	One or more	
Opposition to desegregation of other Institutions in area			
Little	12	30	42
Much	6	62	68
Total	18	92	110

$X^2 = 6.12$; df = 1; $p < .02$.

Types of exposure to Desegregation Experiences	None	One or more	Total
Opposition to desegregation of adjacent school districts			
Little	5	6	11
Much	10	81	91
Total	15	87	102

$X^2 = 5.71$; df = 1; $p < .02$.

Table 9. Organizations Promoting Desegregation Related to Private Schools

Number of Organizations Promoting Desegregation	Districts with Related Private Schools		Total
	None	One or more	
0 - 1	10	27	37
2 or more	9	78	87
Total	19	105	124

$X^2 = 4.36$; df = 1; $p < .05$.

schools proves a more significant variable. When it is analyzed it shows a significant positive relationship (see Table 10).

Strong resentments were engendered in the South against Federal courts and Federal intervention, particularly where districts came under court order to desegregate. The manner in which the school boards reached compliance, therefore, should be related to private schools. Ninety-two percent of those that went under court order have a related private school.

Table 10. Opposition to Desegregation of Schools Related to Private Schools

Degrees of Opposition	Districts with Related Private Schools None	One or more	Total
None	9	31	40
Verbal	12	70	82
Overt action	2	17	19
Total	23	118	141

$X^2 = 12.36$; df = 2; $p < .01$.

The segregation academies must have administrators, faculty and pupils. Pupils must come from the public schools which are also a likely source for faculty and staff. Table 11 shows a positive relationship between decline in school enrollment and the existence of private schools. The number of white teachers who resigned rather than teach in bi-racial classes was also found to be significantly related to the existence of such schools. Ninety-seven percent of the districts which had teachers to resign also had related private schools. No clear relationship could be established for the resignation of school administrators. Many private

Table 11. Decline in Enrollment of Public Schools Related to Private Schools

Change in Public School Enrollment	Districts with Related Private Schools None	One or more	Total
Increase	10	22	32
0-10% decrease	9	42	51
Over 10% decrease	4	60	64
Total	23	124	147

$X^2 = 10.46$; df = 1; $p < .01$.

school administrators came from the ranks of teachers. Reports indicate that many are presently doing double duty.

THE FUTURE ROLE OF THE PRIVATE SCHOOL IN MISSISSIPPI

The Problem of Quality

The major pitch of the segregation academy is "quality education." A brochure of the Council School Foundation (1970:25) gives as number one, "a student body of high quality." Since entrance exams are not required this can only be interpreted as "white equals quality." Other claims to quality may be as tenuous. Green and Gauerke (1959:14) have shown that private schools prior to 1959 were not "doing a better job on the average than public schools." They ask, "If some private schools already in existence fail to meet the standards of public schools, what can be expected of schools hurriedly created to replace the public schools?"

While the State has made provision to extend accreditation to these schools it means little in the light of the general poor quality of public schools in Mississippi. Regional accreditation will be more difficult, proving a serious problem to students who wish to matriculate in colleges and universities outside of the South.

Private schools are independent, and the fear of intervention will tend to keep them so. Only 17 percent have affiliated with the newly formed Mississippi Private School Association. Thus, they lack those cooperative facilities and services that are available to public schools through the State Department of Education, and the teachers' and administrators' associations.

Range of Services

Private schools can not offer the range of services which the public schools provide (Green and Gauerke, 1959:8). Their small size and lack of facilities as well as faculty dictate this. They tend to offer college preparatory courses in a very narrow spectrum.

Continued Existence

Cost is another major factor. Council School Foundation (1970:23) charges tuitions of $450 per year for elementary grades and $600 per year for high. An increasing discount pattern is offered to families with more than one child. Even with only one child in elementary school the cost is $45 down and $45 per month, a rather heavy financial burden for the average family. As prices rise and the problems of desegregation are resolved many families may no longer be able to justify the burden of an expensive private segregated education.

Enrollments may well have peaked this year. If they follow the pattern of parochial schools and begin to decline, many newly-formed segregation academies will have to close. The better equipped and staffed schools located near centers of populations that have a high percent Negro may grow, emerging as boarding schools serving large areas.

The private school movement has a Southern accent now and while it may undergo change it seems to be firmly rooted in the Southern soil. It is now readily apparent that it will not supplant the public schools nor transform them into an all-black system.

REFERENCES

Blalock, H.M. Jr.
1957 "Percent non-white and discrimination in the South." American Sociological Review 22(December):677-682.

Benjamin, H.H.
1964 "Integration stimulus for private education." In Hubert H. Humphrey (ed.), Integration vs Segregation. New York: Thomas Y. Crowell Company.

Bolner, James
1968 "Defining racial imbalance in public educational institutions." Journal of Negro Education 37(Spring):114-126.

Bryant, Ellen S.
1966 Socioeconomic Status Indexes for Mississippi Counties (Bulletin 724). State College: Agricultural Experiment Station, Mississippi State University.

Bunting, J.E.
1969 Private Independent Schools: The American Private Schools for Boys and Girls. Wallingford, Connecticut: Bunting and Lyon, Inc.

Clark, Robert and C.G. Ward.
1970 Racism and the Desegregating Process. Jackson, Mississippi: The Educational Resources Center (memographed).

Council School Foundation
1970 Welcome to Council School. Jackson, Mississippi: Council School Foundation.

Fichter, Joseph H.
1958 Parochial Schools; a Sociological Study. Notre Dame, Indiana: University of Notre Dame.

Green, Donald Ross and Warren E. Gauerke.
1959 If the Schools are Closed: A Critical Analysis of the Private School Plan. Atlanta: Southern Regional Council.

Green, Robert Lee
1964 The Educational Status of Children in a District Without Schools. East Lansing: Bureau of Educational Research, College of Education, Michigan State University.

Hall, Morrill M., and Harved W. Gentry.
1969 "Isolation of Negro students in integrated public schools." Journal of Negro Education 38(Spring):156-161.

Harris, Edward E.
1968 "Prejudice and other social factors in school segregation." Journal of Negro Education 37(Fall):440-443.

Heer, David M.
1959 "The sentiment of white supremacy: an ecological study." American Journal of Sociology 54(May):592-598.

Henderson, Lloyd
1969 As quoted in a memographed paper "Information and data relevant to court order requiring the desegregation of the Starkville Public Schools." Compiled by B. Hal Buchanan.

Kilpatrick, James Jackson
1970 "Back to segregation by order of the courts." National Review 22(June 16):611-626.

Lovejoy, Clarence E.
1963 Lovejoy's Prep School Guide. New York: Harper & Row Publishers.

McDill, Mary Sexton, Arthor L. Stinchombe and Dollie Walker.
1968 "Segregation and educational disadvantage: estimates of the influence of different segregating factors." Sociology of Education 41(Summer):239-246.

Miller, Arthur S.
1957 Racial Discrimination and Private Education. Chapel Hill: The University of North Carolina.

Stinchcombe Arthur L., Mary McDill and Dollie Walker
1969 "Is there a racial tipping point in changing schools?" Journal of Social Issues 25(January):127-136.

Smith, Bob
1965 They Closed Their Schools. Chapel Hill, North Carolina: The University of North Carolina Press.

Pettigrew, Thomas F.
1965 "Continuing barriers to desegregated education in the South." Sociology of Education 38(Winter):99-111.

U.S. Bureau of the Census
1961 U.S. Census of the Population: 1960. General Social and Economic Characteristics, Mississippi, Final Report PC(1)-26C. Washington, D.C.: U.S. Government Printing Office.

ECONOMIC ASSISTANCE IN MANPOWER DEVELOPMENT: TRAINING AND RELOCATION OF MEXICAN AMERICANS

Michael C. Kleibrink and David C. Ruesink
Texas A&M University

ABSTRACT

Lack of economic resources is often given as the reason for minority groups' and displaced agricultural workers' failure to raise their social status. Indeed whether these groups even desire social mobility is often questioned. In this paper the authors examine the reasons why a group of South Texans, predominantly Mexican-American, entered a training relocation program. We also explore perceived need of financial assistance while training in their home community and for moving to a new area about 500 miles away. Finally, the perceived social mobility of the group using a ten point modified Kilpatrick scale. The authors conclude that social mobility is a major goal of the group studied, and while financial assistance is needed, other barriers to social mobility seem to be more important. Most of the relocatees felt that they had raised their status in life through the labor mobility program.

*A paper presented in the Rural Sociological Section of the Association of Southern Agricultural Workers annual meetings, Jacksonville, Florida, February 1-3, 1971.

Economic Assistance in Manpower Development: Training and Relocation of Mexican Americans

Michael C. Kleibrink and David C. Ruesink

Every society has a set of culturally defined goals that its members, in varying degrees strive for.[1] These goals are perpetuated through all forms of communications In the United States, the culture is marked by a central stress on personal achievement which appears primarily through emphasis on competitive occupational achievement.[2] Certain occupations such as that of doctor, or lawyer are held as ideals for young Americans.

Access to the goals held forth by a society is, however, controlled, often rather strenuously, by institutionalized norms.[3] This means that in the United States, for instance, there are specifically prescribed ways of attaining a given occupation. The individual must first gain access to the institutions controlling entrance into an occupation, then prove himself qualified to enter whatever profession he desires.

There are three such institutions easily identified in this nation: economic institutions, educational institutions, and political institutions. The first concern of all people is feeding themselves. This requires that a certain amount of each individual's resources be spent maintaining his physiological well-being. In many cases maintaining a bearable livelihood requires all of the individual's economic resources. Since all profit either economic or social, in the United States, requires some economic investment, many poverty stricken individuals are even shut out of the occupations of intermediate status.

The second type of institution controlling entrance to most occupations is the educational institution. While much effort has been made in recent years to open up educational institutions to all members of this society, many minority groups are still unable to compete with Anglos in Anglo-centered schools. Though many educational institutions work very hard to insure equality of opportunity they are unable to overcome the many years of minority discrimination.

The third and most difficult institutional barrier to entrance in a desired occupation is the political institution. Even though our democratic system is designed to be one of the most equalitarian forms of government, certain individuals or groups are likely to be favored. Seldom will those holding power voluntarily give up that power to the less fortunate. Likewise, giving up one's occupational security by opening one's occupation to less qualified workers is not common.

As a consequence of the inadvertent as well as deliberate closing of many occupations to less fortunate individuals in our society, there are great numbers of unemployed and underemployed workers in this nation. Even more important is the fact that our society supports high occupational mobility goals yet often fails to provide a means for attaining these goals. Merton maintains that where strong emphasis is placed on culturally defined goals without providing a means for reaching those goals one of several forms of deviant behavior may occur.[4]

Mexican Americans[5]

The second largest minority group of this nation is a primary example of the people who are shut out of our social mobility system.[6] "The vast majority of Mexican immigrants were and are poverty stricken individuals. They brought with them little in the way of high priced skills so that in order to improve economically they had to lift themselves up by their own bootstraps."[7] Educational and occupational achievements among these people have been limited, and most exhibit very little social mobility and no intergenerational geographic mobility at all.[8] Many Mexican Americans are concentrated in the migrant farm labor stream (95 percent of all migrant laborers are Mexican Americans[9]). "The total picture of economic deprivation, of restricted opportunity in almost every phase of life unfolded."[10]

Many writers have indicated that Mexican Americans could never move up the social mobility ladder because of their traditional value orientations.[11]

> Mexican American values can be said to be directed toward tradition, fatalism, resignation, strong family ties, a high regard for authority, paternalism, personal relations, reluctance to change, a greater orientation to the present time than to the future and a greater concern for being rather than doing. The contrasting Anglo values can be contrasted to be directed toward change, achievement, impersonal relations, efficiency, progress, equality, scientific rationalization, democracy, individual action and reaction, and a greater concern for doing rather than being.[12]

These findings echo earlier studies of Madsen and Heller.[13] However, the apparent values of Mexican Americans seem to be more of a response to environmental pressures rather than values. The extended family living arrangement appears to be more of an ad hoc solution to temporary economic problems than a valued goal.[14] Many Mexican Americans in California (43 percent)[15] now occupy blue collar jobs. Furthermore, Spanish Americans, Mexican Americans, and Mexican Nationals generally show a strong dissatisfaction and bitterness toward their inability to earn a living [16] Mexican Americans are beginning to recognize their own abilities but must be given avenues for achieving economic success.

The Southwest has the highest concentration of Mexican Americans. This area includes California, Arizona, New Mexico, Colorado, and Texas.[17] Many of the poorer Mexican Americans (namely migrant workers) are concentrated in the lower Rio Grande Valley of Texas. This area is made up of four counties (Cameron, Willacy, Hidalgo, and Starr) which border Mexico. Because of their closeness to Mexico these counties all suffer from the abundance of manpower. However, they do not possess the other resources necessary to attract large industries into the area.

Manpower Development and Training Act

Worker relocation has always been an economic tool. "It has repeatedly been used by those managers who are clever enough to know how to use it when they needed it."[18] It has not been used recently as a tool for public use primarily because of feared political consequences. In 1965, however, a demonstration mobility program was approved because there were many areas with high unemployment rates and many underemployed workers who were willing to relocate but lacked the facilities to make the move. Most unemployed and underemployed people do not have sufficient funds to move their families any great distance and even those who do often do not know where to find available jobs which require their skills.

Thirty-five projects were sponsored by the U. S. Department of Labor. More than forty thousand workers were qualified to enter these programs and about fourteen thousand workers and their families were actually relocated. The demonstration projects were conducted in twenty-eight states with a few workers being moved to nearly every state. Most of the projects were conducted by state employment agencies and varied greatly. Some projects concentrated on skilled workers while some attempted to develop unskilled labor. Most of the projects concentrated on rural workers but some centered on displaced urban workers.[19]

The LTV Project

In Texas much of the unemployment problem is concentrated near the Mexico border. In 1966 the lower Rio Grande Valley of Texas had an average unemployment rate greater than 6.0 percent while the rest of the state was enjoying relative prosperity. The Dallas-Fort Worth area, for instance, had a 2.5 percent unemployment rate for that same period.[20]

Under incentives offered by the 1965 Manpower Act, Vought Aeronautics Division of Ling-Temco-Vought (LTV) decided that a modular training unit - a school temporarily established in a locality of high unemployment - was the solution to its manpower needs. At the suggestion of the Texas Employment Commission and the Federal Bureau of Employment Security, the unit was located in the Rio Grande Valley of Texas. A program was developed to train 750 men as aircraft assemblers in the Valley, then relocate them to the Dallas-Fort Worth area to work at LTV's plant in Grand Prairie. About 90 percent of this group were Mexican Americans.

Actually three training centers were set up - at Harlingen, McAllen, and Rio Grande City. A class of fifteen men was started at one of the centers each week and lasted four weeks. Workers were instructed in sheet metal work including drilling holes, shooting rivets, and measuring sheet metal to be cut. In addition, the men were counseled about what to expect in their new community (demand area). They were shown slides of potential housing and other interesting facts about the Dallas area.

During this four week period each trainee received a subsistance allowance to help provide for his family. At the end of the period of formal training the worker and his family were given allowance to pay for their move to the new area. Movers were arranged to transport what household items a family had to send to their new home.

Upon arrival in Grand Prairie each worker reported to the Texas Employment Commission to collect the moving allowance and be shown possible housing. TEC attempted to offer each worker a choice of potential housing but usually were able only to locate a couple of choices.

After getting settled each man reported to LTV where he received eight weeks of on-the-job training During this time each worker was paid \$2.38 or more per hour. In addition, with funds from the contract LTV provided three counselors to aid the worker and his family with any crisis that might arise in the worker's new community.

Six hundred and eighty-four (684) workers were trained and relocated during the fifty-two weeks that the program was operating with 93 percent of the group remaining on the job at LTV for the first sixty days. The program was begun in September of 1967, yet 55 percent of the relocatees were still working for LTV on June 1, 1970. This is very good considering that aircraft industry has a very high worker turnover rate (around 40 percent per year according to LTV officials), and that few, if any, of the other labor mobility projects can boast of such a retention rate. The North Carolina Mobility Project, a similar program, claims one year retention rates from 33 to 50 percent.[21]

This project attempts to eliminate some of the barriers to social mobility normally found in regular institutions. First, education or training was provided for the workers, giving them a saleable skill. Second, the workers were offered a specific job in a high labor demand occupation in an area of relatively low unemployment. Arrangements were made to have each worker and his immediate family moved to the community where he was to work. Finally, the workers were also given a moving allowance to help get them settled in their new home.

The evidence discussed above suggests that Mexican Americans in general and even many rural Anglo Americans do not have means to gain occupational social mobility. Whether such barriers are apparent to unemployed individuals, however, has yet to be empirically verified. Indeed, whether occupational mobility is even an acceptable goal for these groups is vague. Finally, we know little about the actual effects of relocation programs on the perceived social mobility of those workers who participate in it.

The purpose of this paper is to determine if occupational mobility is a major concern of individuals entering the program outlined above. Secondly, we will attempt to determine whether economic barriers existed for this group of relocatees which would have prevented them from participating in such a program without monetary aid. Finally, we will briefly look at the perceived effect of the training program on the status of the relocated worker.

Methods and Procedures

The data used in this paper were collected in a series of personal interviews with relocatees in the project outlined above. A sample of 111 men who relocated during the months of December, 1967, January and May, 1968, was used. This sample was divided into five cohorts each of which was interviewed at different intervals The first cohort was interviewed one month after relocation and reinterviewed every six months for two years. The second cohort was interviewed 6 months after relocation; the third group was interviewed after 12 months at LTV; the fourth group was visited 18 months after relocation; and the final cohort was interviewed two years after moving to the Grand Prairie area. Data from the first interview of the follow up group and the other four cohorts will be used in this analysis.

Questions in all interviews were generally open-ended. Codes for the responses were developed from the open-ended answers. After the codes were developed each questionnaire was coded by two different statisticians. The two codings were compared and differences were settled by one of the two authors who served respectively as graduate assistant and project director. The final coded data were transferred to data cards for computer analysis and verified once again. Finally, percentage distributions were developed by computer analysis, but no statistical tests were conducted on the data used in this paper.

Findings

Social Mobility Goals

Assuming that each person's goals are reflected in his reasons for doing something, the authors selected the reasons given by each relocatee for his entering the labor mobility program as indicators of his social mobility goals. The responses were elicited through an open-ended question in the post relocation interviews. Six codes were developed from all the responses. Three of these (wanting a better job, wanting a better paying job, and self improvement) deal directly with social mobility. Two of the other three responses are common structural reasons: being unemployed, and wanting a steady or permanent job. The final response, wanting to move, is rather vague, adding little to this analysis.

The primary concern of this section is with social mobility as a cultural goal and therefore the first three codes are our main topic. Over half (55 percent) of all the respondents' reasons for entering the program fit into one of these three categories. Of the three codes, concern for a better paying job was listed most often as the main reason for entering the program. Occupational mobility is apparent in the desire for a better job and for a better paying job (47.9 percent of the respondents gave one of these two reasons).

Comparing the reasons of those who stayed on the job at LTV through June 1, 1970, with the reasons of those who terminated before that time, we see little difference. The stayer group did place slightly more emphasis on the social mobility reasons while the terminal group tended to emphasize unemployment as the primary reason for entering the program (See Table 1).

As noted in the methods and procedures section, not all of the interviews were taken at the same time. The reason that an individual gives for a specific action could be influenced by the factors that happen to be impressed on him at the time he is responding. Therefore the reason a person gives for entering a program such as this one may vary with the amount of time lapse between relocation and his response. The actual goal that the relocatee had in mind when he decided to enter the program may be altered as time lapses. Analysis of each relocatee's reason for entering the training-relocation program, however, reveals rather inconsistent variation (See Table 2). Interest in a better paying job remains as a most important reason for participating in the program. Social mobility appears to receive major emphasis during the period 6 to 12 months after relocation. One interesting factor is the importance placed on a permanent or steady job in the interviews taken two years after relocation. This may be due to the fact that a heavy layoff was rumored shortly before these interviews were conducted.

Perceived Goal Blockage

The second major concern of this paper is the blockage of social mobility goals perceived by the relocated worker. The program under scrutiny was aimed at removing economic barriers to social mobility among minority members. Yet, as pointed out earlier, there may be other, perhaps more

Table 1. Percentage Distribution of Relocated Workers by Their Reason for Entering the Training-Relocation Program and by Their Job Status With LTV on June 1, 1970.

Reason for Entering Training-Relocation Program	Stayers (70)	Terminals (28)	Total (98)
Unemployed	15.7	25.0	18.4
Wanted to Move	10.0	3.6	8.2
Wanted a Steady or Permanent Job	17.1	21.4	18.4
Wanted a Better Job	15.7	21.4	17.3
Wanted a Better Paying Job	32.9	25.0	30.6
For Self-Improvement	8.6	3.6	7.1

Table 2. Percentage Distribution of Relocated Workers by Their Reason for Entering the Training-Relocation Program and by Length of Time Between Relocation and Interview.

Reason for Entering Training-Relocation Program	1 Month (45)	6 Months (12)	12 Months (15)	18 Months (16)	24 Months (10)	Total (98)
Unemployed	17.8	16.7	26.7	18.8	10.0	18.4
Wanted to Move	6.7	8.3	6.7	18.8	00	8.2
Wanted Steady or Permanent Job	24.4	00	6.7	12.5	40.0	18.4
Wanted Better Job	20	8.3	13.3	18.8	20.0	17.3
Wanted Better Paying Job	28.9	50	40.0	12.5	30.0	30.6
For Self-Improvement	2.2	16.7	6.7	18.8	00	7.1

serious, factors preventing a minority member from raising his occupational status. This part of the analysis will concentrate on the importance of the economic aid that the program provided.

While in training each respondent received a small living allowance which was equal to the amount they would have been eligible to receive if they had been on welfare. For the extremely impoverished person, however, this aid may have been a vital factor. Almost 46 percent of the relocatees indicated that they could not have entered without the training allowance (See Table 3), but almost a third of the interviewed group said they would have entered the program. Interestingly, more of those who terminated said that they would not have entered the program without the training allowance, and more of the stayers were uncertain.

The responses of the different interview groups on the goal blockage questions is of great significance because of a methodological fallacy. The first two sets of interviews concentrated on a projection technique of asking what friends and relatives of the relocatee would be likely to do, while in the last three the respondent was asked if he would have entered the program under the three different conditions.

Analysis of the perceived need of the relocation allowance by the different interview groups shows little variation in the percentages that would not enter a training program without it (See Table 4). The distribution of uncertain responses, however, drops sharply when the question was changed. Which of the two types is more valid is an unanswerable question, but it appears that many of the relocatees think they would have entered the training program without the training allowance while considerably fewer feel that their friends and relatives would enter such a program without financial aid.

One alternative proposed has been to hold training classes in the evening. This idea is based on the assumption that the trainee could hold either a part-time or even a full-time job during the day. Such systems are quite common in this society but may not abide with the Mexican American social structure. Furthermore, individuals who hold manual type jobs may feel too tired to go to school at night.

Surprisingly, almost sixty percent of the relocatees said that they or their friends would enter a program if the classes were held at night even though no training allowance

Table 3. Percentage Distribution of Relocated Workers by Perceived Need of Allowance While in Training and by Employment Status at LTV on June 1, 1970.

	Stayers (72)	Terminals (33)	Total (105)
Would Not Train Without Allowance	41.7	54.5	45.7
Uncertain	26.4	12.1	21.9
Would Train Without Allowance	31.9	33.3	32.4

Table 4. Percentage Distribution of Relocated Workers by Perceived Need of Allowance in Training and by Length of Time Between Relocation and Interview.

	Time Between Relocation and Interview					
	1 Month (44)	6 Months (18)	12 Months (16)	18 Months (17)	24 Months (10)	Total (105)
Would Not Train Without Allowance	47.7	50.0	43.8	35.3	50.0	45.7
Uncertain	29.5	27.8	6.3	11.8	20.0	21.9
Would Train Without Allowance	22.7	22.2	50.0	52.9	30.0	32.4

were paid (See Table 5). Almost no difference occurred between the stayer and terminal distributions. Apparently most of those who entered the program did not do so just for the training allowance.

As before this question was asked slightly differently for the first two groups and the last three. Those who were asked if their friends and relatives would enter a program if classes were at night even though no allowance were paid were more uncertain than the respondents who were asked if they would enter a night course program without a training allowance (See Table 6). Among those who were asked what they would do, it seems that time between relocation and interview reduces their willingness to take such a course at night.

A second means of breaking down economic barriers to social mobility that was incorporated in this program was through an allowance paid to the relocatee upon his arrival in Grand Prairie to defray the expense of moving his family and belongings. Lack of funds for immediate settling-in expenses seems to be a major barrier to social mobility since many people are economically tied to the community in which they reside. The findings, however, indicate that even though about 43 percent of those who relocated would not move without assistance, many (almost 37 percent) would have moved without the allowance (See Table 7). This may be partially due to the extreme geographic mobility of the Valley population. Surprisingly, more of the terminals would have moved without the relocation assistance than the stayers.

Looking at the data on perceived need of the moving allowance by length of time between relocation and interview, the authors find one major variation. While asking what the relocatee would have done instead of what his friends would do generally reduces the uncertainty, there appears to be an important difference in the distribution of responses for the group interviewed six months after relocation (See Table 8). Only 14 percent of this group said that their friends and relatives would enter a program and relocate without financial assistance, and over 60 percent said that their friends would not enter under such conditions. This variation from the other group may mean that the economically critical period in relocation occurs between the one and six month period.

Table 5. Percentage Distribution of Relocated Workers by Perceived Need of Training Allowance Even if Training Sessions Would be Held in the Evenings and by Employment Status at LTV on June 1, 1970.

	Stayers (74)	Terminals (33)	Total (107)
Would Not Train Even in the Evenings Without Allowance	14.9	15.2	15
Uncertain	24.3	27.3	25.2
Would Train in the Evenings Without Allowance	60.8	57.6	59.8

Table 6. Percentage Distribution of Relocated Workers by Perceived Need of Training Allowance Even if Training Sessions Would be Held in the Evenings and by Length of Time Between Relocation and Interview.

	Length of Time Between Relocation and Interview					
	1 Month (45)	6 Months (19)	12 Months (16)	18 Months (17)	24 Months (10)	Total (107)
Would Not Train Even in the Evenings Without Allowance	17.8	10.5	6.3	11.8	30.0	15.0
Uncertain	35.6	26.3	12.5	11.8	20.0	25.2
Would Train in the Evenings Without Allowance	46.7	63.2	81.3	76.5	50.0	59.8

Table 7. Percentage Distribution of Relocated Workers by Perceived Need of Moving Allowance and by Employment Status at LTV on June 1, 1970.

	Stayers (75)	Terminals (31)	Returnees (106)
Would Not Move Without Allowance	44.0	41.9	43.4
Uncertain	21.3	16.1	19.8
Would Move Without Allowance	34.7	41.9	36.8

Table 8. Percentage Distribution of Relocated Workers by Perceived Need of Moving Allowance and by Length of Time Between Relocation and Interview.

	Length of Time Between Relocation and Interview					
	1 Month (45)	6 Months (21)	12 Months (13)	18 Months (17)	24 Months (10)	Total (106)
Would Not Move Without Allowance	35.6	61.9	38.5	41.2	50.0	43.4
Uncertain	22.2	23.8	23.1	11.8	10.0	19.8
Would Move Without Allowance	42.2	14.3	38.5	47.1	40.0	36.8

Perceived Social Mobility

The third aspect of manpower development that this paper deals with is the amount of social mobility that actually occurs as a result of training and relocation programs. While some investigators prefer to use objective criteria for evaluating whether the relocatee has bettered his lot, these authors argue that the most important evaluation of the relocatee's social mobility is that made by the migrant himself. It will be his evaluation that will be the basis for any future mobility activity. Even when the relocatee is objectively no better off economically if he perceives himself to be better off he will most likely stay with the program and possibly improve his status later on.

To elicit the migrant's evaluation of his status in the receiving community relative to that in the sending area each person interviewed was asked to rank his life on a ten point scale (using ten as the best kind of life dreamed of and one as the worst)[22]. After ranking his present life, the respondent was asked where on the ten point scale he would have placed his life back in the Valley just before entering the relocation program. The difference between these two ranks is used as a measure of the respondent's perceived social mobility.

Only nine percent of the respondents felt that they had been better off before they relocated, but considerably more felt that their life was about the same in both places. In fact, the modal class for both stayers and terminals was the no difference category. One interesting point is that the terminal group had fewer people who felt that they were worse off after relocation, but 71.5 percent of the stayer group indicated that they are living a better life after relocation compared with 58.7 percent of the terminals. More of the stayer group felt that they had raised their status by two or more points on the ten point scale than did the terminals (See Table 9).

Analysis of the relocatee's perceived social mobility by length of time between relocation and their being interviewed reveals little more than discussed above. One important difference is found in the distribution of social mobility scores of those interviewed six months after relocation (See Table 10). This group has the widest dispersion of any of the mobility distributions. This group also was the only group that did not have a mode at the no difference level.

Table 9. Percentage Distribution of Relocated Workers by Difference in Perceived Status Between Receiving and Sending Communities and by Employment Status at LTV on June 1, 1970.

Difference in Perceived Status Between Receiving and Sending Communities Based on Ten Point Modified Kilpatrick Scale	Stayers (77)	Terminals (34)	Total (111)
-6	1.3		.9
-2	2.6	5.9	3.6
-1	5.2	2.9	4.5
0	19.5	32.4	23.4
1	13.0	23.5	16.2
2	16.9	11.8	15.3
3	14.3	8.8	12.6
4	14.3	5.9	11.7
5	2.6	2.9	2.7
6	7.8		5.4
7		2.9	.9
8	1.3		.9
9	1.3	2.9	1.8

Table 10. Percentage Distribution of Relocated Workers by Difference Between Perceived Status in Receiving and in Sending Communities and by Length of Time Between Relocation and Interview.

Difference in Perceived Status Between Receiving and Sending Communities Based on Ten Point Modified Kilpatrick Scale	1 Month (46)	6 Months (23)	12 Months (15)	18 Months (17)	24 Months (10)	(111)
-6		4.3				.9
-2	4.3	8.7				3.6
-1	8.7				10.0	4.5
0	26.1	8.7	33.3	29.4	20.0	23.4
1	19.6	8.7	20.0	17.6	10.0	16.2
2	17.4	13.0	13.3	17.6	10.0	15.3
3	10.9	17.4	13.3	11.8	10.0	12.6
4	4.3	17.4	20.0	17.6	10.0	11.7
5	4.3	4.3				2.7
6	2.2	8.7		5.9	20.0	5.4
7	2.2					.9
8					10.0	.9
9		8.7				1.8

Instead the modes were at the plus three and plus four levels. Assuming that individuals react in extremes when they are faced with a crisis, the authors think that there is some reason to believe six months after relocation may be a critical period of adjustment for the relocatee and his family.

Conclusions

From the findings analyzed above, the authors conclude that social mobility is a major goal of the relocated Mexican Americans interviewed. Indeed, occupational mobility is the primary reason given for entering the training relocation study. We cannot, however, generalize beyond the limited population considered. Emphasis on social mobility may be a factor that can be used to select future relocatees, as stayers stressed this aspect more than did terminals.

Relocatees apparently feel that there were economic barriers to social mobility as about fifty percent of the questioned relocatees said that their friends would not enter a training program without the allowance. A majority of the relocatees said, however, that they and their friends would enter training programs at night without any allowance. Terminals indicate a need for the training allowance more often than stayers.

The difference between the percentage of relocatees who felt that the moving allowance was necessary and those who said that they or their friends could have moved without it was only slight. From this data, however, those who were interviewed six months after relocation saw a much stronger need for the moving allowance than any of the other groups. The authors believe this to indicate that 6 to 12 months after relocation is a crucial period in adjusting to a new way of life.

Most of the respondents indicated that they were at least as high on the ten point Kilpatrick scale in the new community as in the sending area. Stayers generally indicated a greater positive difference in the two ranks than did terminals.

Implications for Future Research

This analysis concentrates on the barriers to social mobility as perceived by relocated workers. Their perceptions may be very different from individuals still living in an underdeveloped area. Comparable research on the goals and perceived blocks to the goals of impoverished people is vitally needed.

Furthermore, major unanswered questions with regard to social mobility orientation and successful relocation are what happens to individuals who are not mobility oriented and what are the factors that enhance mobility orientation.

From the data on goal blockages, the assistance given the worker while he is receiving the training is more important than the moving allowance. Again, however, we are only looking at the relocatee's perceptions. We do not know what the worker would actually do under varied conditions. From this data, however, the major factor appears to be that social structures be provided that will give the impoverished people a chance to get basic education. Our present public education system seems to be more of a barrier than the economic system. For the people at the level with which we are dealing, saleable skills need to be taught along with basic education. Strong technical training programs for adults need to be developed to compliment the already existing public school system. More research is needed on how those programs should be conducted.

The data on the importance of the moving allowance highlights another area of needed research. What are the crises that the relocated minority individual or family faces? We have yet to explore conditions affecting the migrant's mobility after relocation. We also need to know when the major crises occur for most migrants.

From this analysis it appears that most of the relocatees feel that they are living a better life in the receiving community than they had back in South Texas. Some of the relocatees, however, stay in the new area in spite of feeling that they were better off back home. Our analysis only looks at mobility from a general perspective. We have said nothing about the offset of factors affecting the relocatee's social mobility. Analysis of specific advantages and disadvantages that the migrant is faced with is needed to establish the utility of such a program for different groups of people.

This analysis concentrates on one innovative means for opening up social mobility routes to many underemployed Americans. This type program is not a panacea for all the social problems that underdeveloped areas of this nation face.

It is one small means for solving some of those problems for a small group of people. Other innovative means must be developed to compliment this type of program.

Notes

[1] Robert K. Merton, Social Theory and Social Structure (New York: The Free Press, 1968).

[2] Robin Williams, American Society (New York: Alfred A. Knopf, 1970).

[3] Merton, Social Theory and Social Structure.

[4] Merton, Social Theory and Social Structure.

[5] The term Mexican American in this paper is used to designate those persons of Mexican or Spanish ancestry. Terms such as Chicano, Spanish Speaking People, Mexicanos, Spanish Americans, etc. are often used interchangeably to identify this ethnic group. For a complete bibliography of studies of Mexican Americans see, Nancy Saldana, "Mexican Americans in the Midwest: An Annotated Bibliography," Rural Manpower Center Special Report No. 19 (July, 1969).

[6] Hellen Rowen, "The Mexican American," A Paper prepared for the U. S. Commission on Civil Rights, 1968.

[7] John H. Burma (ed.), Mexican Americans in the United States (Cambridge: Schenkman Publishing Company, 1970).

[8] Celia S. Heller, Mexican American Youth: Forgotten Youth at the Crossroads (New York: Random House, 1966).

[9] Texas Migrant Labor -- 1967 Migration (Austin, Texas: Texas Good Neighbor Commission, 1968).

[10] Ruben Salazar, "Stranger in One's Land," U. S. Commission on Civil Rights-Clearinghouse Publication 19, May, 1970.

[11] Leo Grebler, Joan W. Moore, and Ralph C. Guzman, The Mexican American People: The Nation's Second Largest Minority (New York: The Free Press, 1970).

[12] William Madsen, Mexican Americans of South Texas (New York: Holt, Rinehart, and Winston, 1964); and Celia Heller, Mexican American Youth (New York: Random House, 1966).

[14] Grebler, The Mexican American People.

[15] Fernando Penalosa and E. C. McDonagh, "Social Mobility in a Mexican American Community," Social Forces 44 (June, 1966): 498-504.

[16] John H. Burma (ed.), Mexican Americans in the United States (Cambridge: Schenkman, 1970).

[17] Rowan, The Mexican American.

[18] John T. Blue, "Rationale for Planned and Assisted Relocation in the United States," A Paper presented at the Symposium on the Role of Worker Relocation in an Active Manpower Policy sponsored by the International Manpower Institute in Washington, D. C. (April, 1969).

[19] Blue, "Rationale for Planned and Assisted Relocation in the United States."

[20] U. S. Department of Labor, Area Trends in Employment and Unemployment (Washington, D. C.: Government Printing Office).

[21] Charles Davis (project director), proposal for Labor Mobility Demonstration Project, August 1, 1967 to July 31, 1968, North Carolina Fund.

[22] See F. P. Kilpatrick and Hadley Cantril, "Self Anchoring Sealing: A Measure of Individuals' Unique Reality Worlds," Journal of Individual Psychology 16 (1960): 158-173.

PARENTAL ACCEPTANCE OF VARYING DEGREES OF SCHOOL DESEGREGATION: 1965 AND 1970

By

Melvin Knapp and Jon P. Alston
University of Georgia

Research on the process of school desegregation in American society has become a major topic of research since the Supreme Court decision in 1954. Weinberg (1970) in his massive review of research on school desegregation alone lists approximately 300 references. The bulk of the research, however, falls into the categories of investigating the effect desegregation has upon individual student characteristics. Few of the studies reviewed by Weinberg (1970:214) have investigated the effect of school desegregation upon parents and upon their beliefs and attitudes toward school desegregation. Neither has there been any extensive investigation of just what are the beliefs and attitudes of parents, especially white parents, toward school desegregation and of the factors which are associated with these attitudes and beliefs. Fewer even have looked at this question at two or more points in time.

The few studies that have investigated white attitudes toward school desegregation have found white attitudes becoming more favorable over time (Hyman and Sheatsley, 1956; Hyman and Sheatsley, 1964; and, Sheatsley, 1966). Sheatsley (1966) in his analysis of three NORC opinion polls from 1942, 1956, and 1963 found acceptance of school desegregation by southern white parents had increased from 2 to 30 per cent and from 40 to 75 per cent for non-southern white parents. More whites approve or at least do not object to their children attending school with black children in 1963 than in 1942. The attitudinal differences are large but still there is a large regional difference in attitudes toward school desegregation. Whites in the south according to Sheatsley (1966) are still quite conservative about this matter when compared to whites in the non-south. His analysis, however, only looks at attitudes toward school desegregation as a dichotomous choice--either one approves or disapproves.

The problem is everyone who approves or disapproves may not be using the same reference point. What degree of school desegregation involved may influence whether one objects to or accepts school desegregation. Most whites may not object to the situation where black students are in the minority but most may object where these students are in the majority.

Thus, the question is under what conditions would white parents object to sending their children to school with black students. Would they object to a situation where black children are in the majority, where black children are equal in number or where black children are in the minority? Attitudes toward these three school desegregation situations are examined while controlling for region, sex, and age.

METHODOLOGY

The data derive from two national samples conducted by the Gallup Organization (AIPO) during 1965 and 1970. The two samples are representative of the total American population. However, the items to be discussed were answered by only white adults with one or more children in grade or high school. The items form a Guttman Scale of three items, that is, each respondent is asked the next question only if he answers negatively to the previous question. The questions are:

1) "Would you, yourself, have any objection to sending your children to a school where a few of the children are colored?"

2) "Where half of the children are colored?"

3) "Where more than half of the children are colored?"

The three questions were asked in the exact same wording during both 1965 and 1970.

FINDINGS

Table One indicates how respondents answered the three questions during 1965 and 1970, by region. Two trends are immediately apparent. First, the Southern region is much more resistant toward school integration in any form, irrespective of the year the poll was taken. Half of the Southerners in 1965 objected to school integration in any form, as against eight percent of non-south respondents. However, this does not mean that non-southern respondents are completely in favor of school integration. Northerners accept school integration only when blacks are a minority. When there is the possibility that blacks may form a majority of students, the degree of objection to school integration increases.

TABLE ONE ABOUT HERE

We also note that the Southern respondents changed during the five-year interval. The non-southern sample remained relatively constant, in part because they were more liberal in 1965. That is, the south has become much more liberal during the last half of the Sixties, causing regional contrasts to diminish. Thus, the proportion of Southern parents who object to school integration in any form decreased from half to eighteen percent. In addition, the proportion who would not object to school integration under any circumstances increased from fourteen percent to twenty-five. For this item, the position of southerners in 1970 was still lower than the position of non-southerners in 1965. By 1970, both regions had approximately the same percent (27% South; 31% Non-South) objecting to school integration when Negro students would form more than one half of the student body.

These figures suggest that while southern parents are increasingly "liberal" in terms of school integration, most white parents in America resist the notion of school integration when their children might be in the minority. Resistance toward school integration has decreased in America under essentially "tokenism" conditions. White parents seem--at least on a verbal level--to have accepted some form of school integration, though not to the point that white students may become minorities. While attitudes toward school integration have changed, desegregation would seem to be most likely when white parents are assumed that blacks will not, in common language, "take over" a school system.

Further, Table One suggests that attitudes toward school desegregation have hardened, at least in the non-south. By 1965, non-southern parents had accepted a stance toward school integration which did not appreciably change five years later. The 1970's will probably not experience increasing liberal attitudes toward school integration, except perhaps in the south. That is, whites seem to have reached an optimum level beyond which change will encounter increased resistance, and perhaps even a backlash.

Table Two introduces sex as a variable. Essentially, females are more liberal in that smaller proportions than males object to various degrees of school integration.

TABLE TWO ABOUT HERE

Again, the southern sample changed more than the non-southern respondents. We see that southern males drastically reduced their overt objection to school integration from 58 percent in 1965 to 22 percent in 1970; the corresponding figures for southern females were 42% and 14%. More important, the proportion of southern males and females not objecting to school integration in any form increased considerably, the southern sample still lags behind the non-south. From Table Two, we see both southern males and the females have become more liberal from 1965 to 1970. Changes in attitudes were not restricted to one or the other sex, but took place throughout the southern sample.

By 1970, the southern sample approached the non-southern sample in the proportion objecting to school integration when Negroes formed more than one-half of the student body. Further, the proportions are exactly equal in the southern sample for both males and females: the sexes agree to an equal percentage (27 percent) that they object to school desegregation when blacks would form one-half or more of the student body. The proportions are similar across regions as well as in 1970. In the south, as in the non-south, either sex is as likely to reject school integration when white students would form near or actual minorities. The same is true in the non-south sample. Both sexes, irrespective of residence, object equally to loss of a white majority in their school system.

The last table to be presented introduces age. Southern respondents in 1970 whether over forty or under forty object equally to any form of school integration (17 percent). Approximately the same proportion (25 and 27 percent in 1970) hold the other extreme of not objecting to any form of school integration. The picture that emerges is a few are strongly conservative and about one out of four are strongly liberal in 1970 whether the parent is over or under forty. The changes from 1965 to 1970 also are basically the same for both age groups.

TABLE THREE ABOUT HERE

What is found for the southern respondent is those over forty are more likely to draw the line at the point where blacks form one-half of the student body. Younger white parents, however, are more likely to draw the line where blacks form more than one-half of the student body. Though the differences are not large they do suggest that the younger white parent is more willing to accept a larger proportion of black students in his children's school than are older parents.

This same trend appears when the non-southern parent is examined. While allowing for the more liberal stance of the non-southern parent the younger parent in 1970 is less likely to object to any form of school integration than is the older parent. Younger parents have become more liberal from 1965 to 1970 but older parents have become more conservative during this same period. The trend for older parents has been reversed. The implication is older non-southern parents may have reached the upper limit as far as not objecting to any form of school integration. Whether the same reversal will occur for the younger white parent or not remains to be seen. Still the overall finding is most parents and southern parents more so than non-southern parents object to any school situation where their children would be in the minority.

Conclusions

In summary, we found that the south still lags behind the other regions in the degree of acceptance of school integration. However, the south now holds much more liberal views than it did in 1965. The south has gradually decreased its regional isolation and difference.

Both regions resist the possible integration of blacks in such large numbers that white students would be a minority. This seems to be a major fear: whites do not wish to innundate their school systems with black students. Limited tokenism is now for the most part accepted, even in the south, but both regions join together in objecting to more than token school integration. On this point, the younger parents are in agreement with those who are older.

More important, the change in proportions from 1965 to 1970 indicate that the trend toward increasing acceptance of school integration is at its peak and may even decrease, especially in areas where blacks form a large proportion of all students. It is in these areas that integration will not occur smoothly, at least until white parents re-evaluate their fears.

Therefore, we are most pessimistic for future trends. White parents are highly likely to resist school integration when it is most needed: where there are large numbers of segregated black students, both in the north and in the south. The trend toward "Benign Neglect" in terms of school integration seems to be prevalent throughout the population, and reading between the lines, our data may suggest that the term "Benign" may be too optimistic, since white parents seem to object strongly to the potential loss of their majority status in their school systems.

REFERENCES

Hyman, H. H. and Paul B. Sheatsley
1956 "Attitudes Toward Desegregation." Scientific American 195 (December):35-39.

Hyman, H. H. and Paul B. Sheatsley
1964 "Attitudes Toward Desegregation." Scientific American 211 (July):16-23.

Sheatsley, Paul B.
1966 "White Attitudes Toward the Negro." Journal of the American Academy of Arts and Sciences 95:217-238.

Weinberg, Meyer
1970 Desegregation Research: An Appraisal. Bloomington, Indiana: Phi Delta Kappa (2nd Edition).

Table One

Parental Attitude Toward School Integration By Region, 1965 and 1970

Degrees of School Integration	Region			
	South[a]		Non-South	
	1965 (N=300)	1970 (N=123)	1965 (N=822)	1970 (N=458)
Object to any Form of School Integration	50%	18%	8%	7%
Object Only When Negroes form one-half of the Student Body	24	30	26	21
Object Only When Negroes form more than one-half of the Student Body	12	27	29	31
Would not object to school Integration under any circumstances	14	25	37	41
Total	100%	100%	100%	100%

[a] South includes the following states: Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas. All other states were considered non-south.

Table Two

Parental Attitudes Toward School Integration by Region and Sex, 1965 and 1970

Degrees of School Integration	Males			
	South		Non-South	
	1965 (N=135)	1970 (N=59)	1965 (N=380)	1970 (N-213)
Percent Objecting to any form of School Integration	58%	22%	11%	10%
Percent Objecting only when Negroes form one-half of the Student Body	18	29	22	22
Percent Objecting when Negroes form more than one-half of the Student Body	8	27	31	33
Would not object to any form of school integration	16	22	36	35
Total	100%	100%	100%	100%

	Females			
	South		Non-South	
	1965 (N=165)	1970 (N=64)	1965 (N=442)	1970 (N=245)
Percent Objecting to any form of school integration	42%	14%	5%	4%
Percent Objecting only when Negroes form one-half of the Student Body	29	31	28	21
Percent Objecting when Negroes form one-half or more of the Student Body	16	27	27	29
Would not object to any form of school integration	13	28	40	46
Total	100%	100%	100%	100%

Table Three

Parental Attitude Toward School Integration
By Region and Age, 1965 and 1970

Degree of School Integration	AGE Under Forty			
	South		Non-South	
	1965 (N=175)	1970 (N=69)	1965 (N=384)	1970 (N=219)
Object to any form of School Integration	51%	17%	8%	6%
Object only when Negroes form one-half of the Student Body	26	28	29	22
Object when Negroes form more than one-half of the Student Body	11	30	31	28
Would not object to school integration under any circumstances	12	25	32	43
Total	100%	100%	100%	99%

- -

Degree of School Integration	Over 40			
	South		Non-South	
	1965 (N=117)	1970 (N=52)	1965 (N=422)	1970 (N=238)
Object to any form of School Integration	44%	17%	7%	8%
Object only when Negroes form one-half of the Student Body	21	35	22	21
Object when Negroes form more than one-half of the Student Body	15	21	27	33
Would not object to school integration under any circumstances	20	27	44	39
Total	100%	100%	100%	101%

Some Aspects of Human Ecology as Seen in Racism in the South

by George A. Sewell

The purpose of this paper is to examine a few areas of human behavior in our environment--education, religion, economics, and politics--and to relate those observations to certain principles of human ecology.

We operate here on an admitted bias. As observed many years ago by Robert E. Park,

> ...human ecology deals with society in its biological and symbiotic aspects, that is, those aspects brought about by competition and by the struggle of individuals in any social order to survive and to perpetuate themselves.[1]

Amos Hawley points out that human ecology is concerned with sociological problems in their fullest breadth, and therefore overlaps all the spheres of learning that concern the social life. Thus human ecology fastens its primary attention upon the human interdependences, the human interrelations that develop in the action and reaction of a population to and in its habitat--the human community.[2]

Human ecology has limited objectives. It seeks knowledge about the structure of a social system and the manner in which the structure develops. Hence it is not prepared to provide explanations for all of the manifold interactions, frictions, and collisions that occur within the bounds of a social system. The findings of human ecology, however, define the context in which all such phenomena take place.

Racism has been variously defined. Basically it includes the belief that there are pure races of men, clearly marked off from one another; that these physically distinguishable groups have different mental and emotional traits that can be rated on a scale of superiority and inferiority; that the superior races are destined to rule and dominate; that any individual of the superior race must be superior to any individual of the inferior race; et cetera. It is the many faceted expressions of that unscientific dichotomy as found in our environment that we propose to investigate, and to delineate such correlations as found to be influenced by the mores of the community itself.

Our environment is the eleven ex-Confederate States that H. C. Brearly

---

[1] Park, Robert E. (Editor), *An Outline of the Principles of Sociology*, N. Y.: Barnes and Noble, Inc., 1938, p. 70.

[2] See *Encyclopedia of the Social Sciences*, IV, 1968, p. 329.

once caustically called "that part of the United States lying below the 'Smith and Wesson line'". More recently it has been described as "a region of strange protocols and exasperating psychological defenses whose state of mind is a near-unfathomable maze molded by tradition, ancestry, caste, race, poverty, ties of kinship and the sensation that non-Dixie eyes are forever watching, and disapproving." Furthermore, it is seen as a rich complexity of fierce and fragile elements, with approximately 25 percent of the nation's total population--38 million whites and 11 million blacks, yet those blacks comprise more than half of the national aggregate. It is the most physically isolated part of the country, yet it is 54 percent urban; the most agrarian-minded, yet everywhere manufacturing outstrips farming as the main source of income. It is the most intensely Christian corner of the country, and the most openly racist. It maintains a high birth rate and a low level of formal education. The most rural section of an urban society, the least schooled segment of an educated society, the least industrialized of an industrial society.[3]

Church and Religion

The South is the most church-oriented part of our country. Reese Cleghorn, journalist-author, reports that,

> ...the percentage of people who are current members of southern Protestant churches is about twice as high as in any other part of the country, and three times as high as some. This is the only region where current members of Protestant churches far ournumber the members of Catholic and Jewish congregations. Only in the South do Protestant churches have an actual majority of the total population. The South had, in 1952, 4.1 churches per 2,000 people, compared with 1.4 in the Northeast, 2.4 in the North Central region, and 1.5 in the West. Beyond this, we must consider what churches Southerners are in. Two examples will suffice for the Deep South. In Mississippi, Baptist, Methodists, Presbyterians and members of the Disciples of Christ account for 94 percent of the population; in Georgia, for 93 percent. Baptist and Methodist memberships comprise the great bulk of this membership.[4]

Moreover, the Christian ethics of the Southern church has been warped by its proximity first to slavery and later to white supremacy. Its theology, developed apart from the mainstream of American Christianity, is primarily fundamentalist-pietistic-Protestantism. During the late 19th century when other parts of the country were moving away from revivalism, the South institutionalized that phenomenon and stayed with it on account of its heavy emphasis on emotion, simple doctrine, and quick assurance of salvation. It had special appeal to a people who made a preposterous anti-intellectual, individualistic fetish of the liberating principles of historical Protestantism.

---

[3] See Hedgepeth, William, "The American South: Rise of a New Confederacy," Look Magazine, November 17, 1970, pp. 19 ff.

McKinney, John S., and Edgar T. Thompson, The South in Continuity and Change, Durham: Duke University Press, 1965, pp. 95-6.

Mack, Raymond W. (Editor), The Changing South, N. Y.: Aldine Publishing Co., 1970, p. 16.

[4] Cleghorn, Reese, Radicalism Southern Style, Atlanta: Southern Regional Council, 1968, p. 29.

It is not by accident that the South caught up in throes of a fire and brimstone--"damnation"--would at the same time spawn the Klu Klux Klans and the White Citizens Councils. Charles D. Nelson, coordinator of the John Birch Society for Alabama, Florida, and Mississippi, states that "the preponderant majority of our members are deeply religious."[5]

Thus our problem resolves itself in an almost imponderable paradox. On the one hand, here are a people who "study" the Bible, most of whom "belong to the church," and by their own standards call themselves Christians; yet at one and the same time they are the most militaristic and the most racist. The author of a Look Magazine article puts it this way:

> The white people of the South are truly religious people. You start talking to the average man on the street about Jesus, and he'll get teary-eyed. But if you can get it through a man's head that what he has been doing is wrong, he will either scrap his faith or he'll change.[6]

This kind of religious schizophrenia sits overly heavy on white rural Southerners in such outposts as Philadelphia, Mississippi; Terrell County, Alabama; and southwest Georgia. Tradition and custom have gotten between them and their make-believe Christianity, so much so until they cannot see clearly what the real message is all about. They choke back the real message and their better impulses out of fear of their own white society. To them, the Southern way of life amounts to a daily violation of their best concepts of themselves. It accounts for tensions and guilts, for hatreds and prejudices, for injustices and violences.

> The ecological approach to American regionalism reveals that, in spite of post-war changes of some magnitude, the Southeast is still characterized by rural, racial, and religious factors, and that the term 'Bible Belt' is more than an epithet. The manner in which the religious influences have helped maintain the rural and

---

[5] Ibid., p. 27.

[6] Hedgepeth, op. cit.

254

> racial features of the region suggests that the religious factor has been responsible more for continuity than for change.[7]

Education

Education is the primary instrument through which the capabilities of a people are developed so that they may contribute to and participate in the material prosperity and cultural advancement of the community toward its own self-fulfillment.

Such an endeavor has an indisputable relation to economic considerations. According to John C. McKinney and Edgar T. Thompson,

> The relatively unfavorable position of southern education is shown again in the expenditure per pupil in elementary and secondary schools. None approximates the national average of $432.00, and the nine states with expenditures below $300.00 are all southern.[8]

The end product of this deficiency may be seen in that,

> Southern public school students score substantially lower on standard achievement test scores; by the 12th grade, for example, whites in the metropolitan South are 1.2 grade levels behind whites in the metropolitan Northeast and Negroes in the nonmetropolitan South are 1.0 grade levels behind Negroes in the nonmetropolitan North on a standard achievement test in mathematics. Thus it is apparent that youth suffer an educational disadvantage by virtue of living in this region. Within the region, on this same test, metropolitan Negroes are 4.4 years behind metropolitan whites, and rural Negroes are 4.8 years behind rural whites. It is a plausible argument that southern Negroes suffer a double disadvantage, one for being southern and one for being Negro, and that rural Negroes suffer in addition the restraint of being rural.[9]

In 1963, ten states spent less than $200.00 per pupil on education, and every one of the ten was a Southern state. At the same time, 31 states spent $250.00 or more per pupil, and not one of them was in the South.[10]

---

[7] Maddox, George L., and Joseph H. Fichter, "Religion and Social Change," Journal of Social Issues, January, 1966, p. 56.

[8] The South in Continuity and Change, Durham: Duke University Press, 1965, p. 205.

[9] Campbell, Ernest O., "Negroes, Education and the Southern States," Social Forces, March, 1969, p. 254.

Again, of the ten states with less than 20 percent of its total population aged 18-24 in college, seven of those states are in the South. Fewer Negroes than whites enroll in college at all.

The SREB reported that in 1966-67 about 15 percent among Negroes and 44 percent among whites of the college age population were enrolled.[11]

Most of the nation's Negro college students are educated in the South, and such students attend essentially all-Negro institutions (as opposed to State institutions). Those colleges tend to have:

A small proportion of degree-seeking students,
A large number of freshmen relative to upper classmen,
A faculty that is underpaid,
A favorable student-faculty ratio and a favorable per student expenditure,
A small proportion of faculty with the earned doctorate,
Limited funds budgeted for research,
Not to offer the earned doctorate or to have a chapter of Phi Beta Kappa, and
Recruit their students from segregated rather than interracial high school environments.

> Numerous studies have shown that racial prejudice and discrimination tend to be related to low levels of formal education. If southern segregationist sentiments are linked to the low educational levels of the region, then a continued increase in the average schooling of southerners could be expected to lead to a basic modification of attitudes....The proportion of whites who are strict segregationists decreases with every increase in education. Whites with no more than grammar school educations are eight times more likely than those with post-graduate college training to be strict segregationists. But a careful examination of the findings suggests that they (those with higher education) are no basis for an expectation of large-scale change in the South within the near future.[12]

---

[10] Mack, Raymond W. (Editor), The Changing South, N. Y.: Aldine Publishing Col, 1970, p. 17.

[11] The Negro and Higher Education in the South, SREB, 1967.

[12] Matthews, Donald R., and James W. Prothro, "Southern Racial Attitudes: Conflicts, Awareness, and Political Change," Annals, American Academy of Political and Social Science, November, 1962, p. 109.

Allan L. Sorkin of the Brookings Institution published a paper, "Negro Unemployment,"[13] in which he examined the often stated assumption that educational attainment is one of the most important means of minority groups of advancement into the mainstream of American economic life. His conclusion, however, is that "there seems to be little relationship between the relative increase in the educational attainment of a nonwhite age group and the change in the age group's relative unemployment rate."[14]

A recent study by Russell Middleton, University of Wisconsin, indicates that most department chairmen in Southern colleges and universities believe that their recruiting of staff is hampered by the images scholars have of the South. Middleton's study of doctoral candidates about to enter college teaching shows that the South is the last region where scholars choose to work. He concludes that "for the immediate future the prospects for higher education in the South are dubious."[15]

In the South 10.5 percent of the whites and 33.5 percent of the Negroes 25 years and older had completed less than 5 years of elementary school in 1960. This is a particularly serious handicap to Negroes where educational requirements for employment are constantly rising.[16] Forty percent of the whites and 14 percent of the blacks in the South over 25 years of age had completed four or more years of high school in 1960.

Negroes, who constitute over 20 percent of the population of the South, often require special attention to compensate for limited cultural backgrounds; then home and community environments are often not conducive to learning; most enter school without preschool experience; and jobs requiring extended schooling are usually not available to them.[17]

> In the past the vocational education provided for Negroes was usually different and more limited than that provided for whites. Negroes received training in bricklaying, carpentry, shoe repairing, and auto mechanics, but many kinds of vocational education were denied them. With the passage of the Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, the Economic Opportunity Act of 1964, and the Civil Rights Act of 1964, this situation is changing. Many new vocational training programs are being provided for both whites and Negroes that will improve their skills and enable them to meet job

---

[13] Social Forces, March, 1969, p. 265 ff.

[14] Ibid., p. 268.

[15] Mack, Raymond W. (Editor), The Changing South, N. Y.: Aldine Publishing Co., 1970, p. 19.

[16] Maddox, op. cit., p. 84.

[17] Ibid., p. 90.

requirements of the future.[18]

Economics

Inequality of opportunity because of race and color has been one of our most persistent problems, and inequality in employment has been a major part of that problem.

> Observers of the Southern scene have long contended that traditional Southern race relations are an impediment to economic progress, and that the Southern economy will be depressed as long as the rights of Negroes are suppressed. This point was made in 1889 by Lewis Blair, a Richmond gentleman and businessman of some stature: "We must trample, or we must elevate; to maintain the status quo is impossible. To trample is to perpetuate and intensify the poverty and stagnation under which we groan; to elevate is to make the South rich, happy and strong." This argument is as relevant today as it was 75 years ago.[19]

About 30 percent of the nation's population lives in rural areas, but 48 percent of the nation's poor lives in rural areas.[20] One in four people living in rural areas is classified as poor. The total is 14 million. Most are white, but a higher percentage of blacks in rural areas (1 out of every 3) are poor, and most of these are in the South's Black Belt. Mississippi, Georgia, Florida, and Alabama have highest sales taxes, which in turn means poorest people are hardest hit.[21]

It is a well-known fact that the degree of education is quite highly correlated with accessibility to well-paying employment. A minimum amount of education is usually essential to carrying out specific job requirements.

The median school years completed by persons in the South in 1950 were 8.5-10.9 among whites and 4.6-7.3 among nonwhites; by 1960, the median for all Southern rural farm people had become 8.4 and the rural farm nonwhite median had risen to 6.4. Even so, the nonwhite and rural rates remain too low to meet the requirements of many types of industry.[22]

---

[18] Ibid., p. 92.

[19] Maddox, p. 123.

[20] SRC., South Today, p. 5.

[21] Ibid.

[22] Ibid., p. 118-119.

> Of the 3.3 million net emigrants from nine Southern states, 53 percent were nonwhite. These migrants left (as did 2.4 million in 1940-50) presumably because they expected to find elsewhere greater opportunities than the slowly growing Southern economy was likely to provide. Their removal is inadequate, however, to correct underemployment or to overcome the slowness of the overall Southern capital-worker ratio; capital for external as well as internal sources is required.... Insofar as migration carries out more people with skill and training than come to the South, it reduces the region's capacity for development, badly equipped as the South is with skilled personnel.[23]

Southern racism dictates that blacks doing the same work as whites shall receive less income than their pale face counterparts. In 1959 the average annual earnings of black male workers 25 to 64 years of age in the experienced labor force were 49 percent of those of white male workers in the South. Black high school graduates had lower average earnings than whites with less than eight years of schooling. Maddox thinks that instead of diminishing with increases in education, difference in earnings of blacks and whites tend to grow larger.

In 1960 white urban males received about 2.3 times as much income as their rural farm counterparts, and urban nonwhite males about 2.8 times as much income as their rural farm counterparts. White urban males received nearly twice as much income as nonwhite urban males, while white rural farm males received nearly 2.4 times as much as their nonwhite counterparts.[24]

> Small farms and farmers are a feature of the Southern landscape, now being eaten away by impersonal economic forces. And due, largely, to developments such as increased mechanization, the soil bank and the minimum wage, the landless class of black farmers (tenants, sharecroppers day laborers) are the first to go. Some band together in Coops., while others feel forced to migrate North and fuel the glutted ghetto, and still others migrate deeper South.[25]

Organized labor has had a rough course in the racists' South. Blacks have not been allowed to join certain unions. Apprenticeships, a prerequisite for many trades, are not available for them. Blacks make up about 35 percent of "mud trades"--bricklaying, plastering, hod carrying--those which whites increasingly shun. There are a few black electricians, sheet metal workers, glaziers, plumbers or pipe fitters. In the South there are still several hundred segregated all-black locals--the machinists, paper mill workers, and others.

---

[23] Ibid., p. 121.

[24] Ibid., p. 112.

[25] McKinney, John C., and Edgar T. Thompson (Editors), The South in Continuity and Change, Durham: Duke University Press, 1965, p. 103.

Despite federal court rulings that race must not be a consideration in promotions, assignments or seniority, the United Paper Makers angrily threatened to strike Crown Zellerbach's plant at Bogalusa, Louisiana, after the company agreed to end discriminations.

Politics

Dixie politics have always been a razzle-dazzle display of public figures in perpetual tantrum spouting verbal pyrotechnics, with the sole aim of frightening folks to the polls. "Conservative" and "liberal" lose all meaning here; a raving Bolshevik might well be acceptable as long as he displays a knee-jerk negativism when it comes to Negro rights!

But with the accumulation of civil rights legislation, politics have taken on a different and somewhat fatalistic flavor. Politicians--perceiving deep down that racial questions have largely been removed from their hands--still feel the need to go through obligatory rituals of racism and xenophobia and self-justifying displays of muscle and resolve--i.e., "standing in the school house door," baring the breast to Federal bayonets, being jailed in defense of Dixie, et cetera, to show the voters, and to assure themselves that the sacred icons won't be surrendered to the Feds without a fight. Most are aware, though, that eventually the whole thing is impossible, that, as one confided, "You can't prevail against it." Yet they persist, knowing the Southern fascination for lost causes, realizing they won't win--and possibly even hoping for defeats so they can feel relieved of the issue (and guilt" for once and for all.

Governor Wallace stood in the school house door and wound up with the entire state being put under court order to integrate. Governor Claude Kirk tried the same stunt in 1970 and ended up being fined by a court and being elevated a mere notch in the annals of buffoonery.

In 1940, only 5 percent of the South's voting age blacks were registered. In 1950, it was 20 percent, 28 percent in 1960, and today--due to the 1965 Voting Rights Act--over 66 percent are registered. In addition, not only do voting age blacks outnumber whites in 85 rural counties, but so many have become urbanized that they already loom as an impatient and potent force of social change. The percent is not that each newly registered Negro amounts to an additional faceless cipher in a vast bloc vote; rather, it is that blacks are gaining sufficient political strength that Southern politicians are now obliged to start regarding them seriously as individuals. Status change is the essence of social change, and already politicians are seeing blacks in a new perspective. ("It's 'bout night impossible to yell nigger-nigger in a race anymore," an old politician confided. "You'd just upset too many nigger voters and you need 'em.")[26]

A survey by the Voter Education Project of Atlanta shows Negro voter registration in the South increased 212,000 since 1968. As a result, the 1970 November elections saw a total of 110 blacks elected to public office. Thus in each of the 11 Southern states there are now black public officials ranging all the way from City Councilmen in Virginia to a single State Legislator in Mississippi.

> The only large Southern city in which blacks come close to proportional representation is Jacksonville, Florida, where they hold four of nine city council seats.[27]

For whatever the South has chosen to accept in the way of racial practices, it has not yet accepted in any state that entire division of political opinion along lines of natural economic interest that could make black votes decisive and thus raise what Francis Butler Simkins calls "the bete noire" of Southern politics--the election of blacks in considerable numbers.

Summary--Conclusions

Man, like every other living creature, is inextricably involved in what Charles Darwin so aptly described in the metaphor, "web of life." That vivid concept has since become the point of departure for ecological study; it constitutes the frame of reference for an ecological analysis of life. The deeper the analysis is pushed, the more meaningless becomes such a word as independent.

Human resources are the most vital. But when the specter of racism dictates that a child must not receive equal educational opportunity solely because of the color of his skin, that decision has a direct relation to the total fabric of the web of relations that are so indispensable in our society. For example, religious beliefs affect not only religious behavior, but also educational, economic, political and social behavior. Likewise, economic, political and social behavior may also affect religious beliefs.

Thomas D. Clark suggests that "the crime of the past generations was failure to train rural school-age Southerners, black and white, to surpass a preceding generation in educational competence." Continuing, he places a finger on our immediate concern: "The fact that a great body of human energy represented in the Negro population alone was not conditioned to make a maximum contribution to the production of Southern wealth was a major blunder in the first half of the century.[28]

---

[26] Look Magazine, p. 37.

[27] Time Magazine, April 6, 1970.

The quality of the South's labor force will have much to do with her capacity to attract capital and to elevate output per head. But those developments are directly related to her educational index.

As stated above, over half of the blacks in the nation are concentrated in the South. However, they comprise less than one-fourth of the region's total population and that ratio is decreasing daily. Nevertheless, they continue to represent a decided affirmative correlation to the total life of the Southern community. They affect the per capita income,the level of employment, the labor market, the social welfare, and out-migration.

The heavy migration of blacks from the South has deprived the area of the services of some of its most talented, best educated, and most productive citizens. We may well recall that racism is a two-way street. Not only do many blacks desert the area, but numerous young educated whites likewise seek employment elsewhere, often for similar reasons.

Racism has a demographic effect. In Mississippi the black population is about 900,000. There are only 46 black physicians. This is a ratio of more than one practitioner to 19,000 people. Federal health officials estimate a ratio of 1 physician to 1,000 persons is needed for a minimum standard of health care.

In the past the white man ran the South in his own way, and the rest of nation was not disposed to do anything about it. Today, although still very much the subordinate caste, the Negro in the South is more militant and politically powerful than at any time since Reconstruction. It is safe to assume that Southern Negroes will press their claim for equality with increasing effectiveness in the years ahead. It is also safe to assume that they will receive increasing aid and comfort from the rest of the nation. Federal intervention--"meddling by outsiders" in the Southern whites' phrase--will continue to grow so long as these conditions hold or until such time as the Southern Negro achieves political and social equality. The racial attitudes of both whites and Negroes in the South are, therefore, of importance today. Their ecological implications are increasingly paramount.

Commensalism is a basic aspect of ecology. Literally it means "eating from the same table." James McBride Dabbs, a South Carolinian, echoed that aspect when with the distilled wisdom of a poet and philosopher he wrote,

> Through the process of history and the grace of God we have been made one people....It is disastrous to talk and act as if we are two....The white Southerner is the

---

[28] Clark, Thomas D., Three Paths to the Modern South, Athens: University of Georgia Press, 1965, p. 23.

> man he is because he has lived among Negroes, and they are the people they are because they have lived with him. We don't have to do anything about it; we have only to accept the fact.
>
> --The New South

Our concern here has not been with physical nature in the conventional sense, but with people. It is not that the air is polluted, the streams contaminated, or the soils depleted; rather, it is that the actions of people as they impinge upon our human resources serve to annihilate any viable approach to our human situation. The statistics cannot be evaded. It is useless for us to pretend that the region we love is not identical with the region whose faults and needs have been so thoroughly tabulated. In addition to organizational configurations observable at a given point in time, ecologists have always shown keen interest in change in the internal structure of the community. To that end may we devote ourselves.

References

Calhoun, Don, et al., An Introduction to Social Science, N. Y.: J. B. Lippincott and Company, 1961.

Campbell, Ernest O., "Negroes: Education and the Southern States," Social Forces, 3, 1969, 254.

Cleghorn, Reese, Radicalism Southern Style, Atlanta: Southern Regional Council, 1968, 29.

Hawley, Amos, "Human Ecology," Encyclopedia Social Sciences, IV, 1968, 329.

Hedgepeth, William, "The American South: Rise of the New Confederacy," Look Magazine, 11-17-70, 19 ff.

Mack, Raymond W. (Editor), The Changing South, N. Y.: Aldine Publishing Company, 1970, 76.

Maddox, George L., and Joseph H. Fichter, "Religion and Social Change," Journal of Social Issues, 1, 1966, 56.

Matthews, Donald R., and James W. Prothro, "Southern Racial Attitudes," Annals, American Academy of Political and Social Science, 11-62, 109.

McKinney, John S., and Edgar T. Thompson, The South in Continuity and Change, Durham: Duke University Press, 1965.

Park, Robert E. (Editor), An Outline of the Principles of Sociology, N. Y.: Barnes and Noble, Inc., 1938, 70.

Time Magazine, 4-6-70.

Sorkin, Allan L., "Negro Unemployment," Social Forces, 3, 1969, 265 ff.

LABOR SYSTEMS ON THOROUGHBRED HORSE FARMS: 20th CENTURY VESTAGES OF FEUDALISM?

by

Maurice E. Voland
Extension Specialist in
Rural Sociology
University of Kentucky

Rabel J. Burdge
Assistant Professor of
Sociology
University of Kentucky

INTRODUCTION

By design or neglect social scientists have seldom penetrated the white wash fences of thoroughbred horse farms. The conception of landed gentry surrounded by Negro grooms and servants with a backdrop of southern hospitality and blooming magnolias generally persists. Our curiosity persisted and we sought to confirm if the rumors that in fact vestages of antibellum feudalism were alive in the 20th century on bluegrass horse farms.

The horse farm has not been included in the definition of Agriculture chiefly because its product is neither food nor fiber. However, because it is rural and many equine services are available through the Colleges of Agriculture it can be the territory of rural sociologists. This study is focused on the Bluegrass region of Kentucky where the thoroughbred horse has been basic to the economy and has been the impetus to a unique culture.

History

The thoroughbred horse is big business in Kentucky and the industry has developed and maintained a national market since the 19th century. Kentucky is the leading state in the production of thoroughbred horses with an estimated 4,000 foals per annum. To supply the present market approximately 250 breeding farms (of varying sizes) operate in the Bluegrass region of the state. Because of the delicate nature of the thoroughbred horse and the constant personal attention believed necessary to insure a high quality bloodline and racing stable the industry has used large quantities of labor.[1]

---

[1] The cost of the horse is no small factor. A minimum price is $10,000 and for the better horses the figure runs to hundreds of thousands of dollars.

Spindletop Research estimated that in 1964 the farms in the Bluegrass region employed 2,000 persons. Horse farm labor has always been "cheap" subject to seven day twelve hour a day work. How these farms have managed to keep labor in face of rising wages and improving work conditions in other sectors of the economy is one of the concerns of this study.

Purpose

The nature of this study was exploratory and its objective was to (1) identify the labor system of the thoroughbred horse farms along with various labor-management factors and (2) develop a theoretical basis for analyzing the occupation of horse farm workers.

Horse farm labor comprises a significant occupational role for the Bluegrass and the conditions of this labor situation seem to be unique with little hope for generalization to other categories of agricultural workers. Horse farm employees are not included in the state labor and agriculture statistics and in general there is a sparacity of information on the horse farm operators. We are not sure if this oversight is by design a big accident, nevertheless with increased demand for the thoroughbred horse we feel that the time is ripe for a sociological peek at the labor system on horse farms.

AREAS FOR STUDY

Because the nature of this research is exploratory we have no hypotheses as such, rather we are exploring certain "hunches" on the basis of other trends in the agricultural labor force.

(1) Young blacks will be less likely to seek employment in the horse industry. This trend is based on the notion that young blacks lack skill in handling horses, are attracted by expanding Lexington industries, lack of career routes to managerial positions in the horse industry, and the resistance of young blacks to the stereotype attached to older black horse farm workers.

(2) The horse farm industry will increasingly rely upon surplus labor from general agriculture, upon unskilled urban labor and upon young white females.

With increased mechanization in other sectors of agriculture surplus unskilled labor should be available for transfer to the expanding horse industry. The elimination of urban unskilled occupations should free labor which could be employed, if forced to, on horse farms and finally females should represent a larger input into the horse farm labor market because of their general low demand for wages and the romantic traditions many women associate with the horses and riding.

Finally we suggest that the general situation on horse farms is one of inefficient utilization of resources. While innovation has been characteristic of most agriculture such is not the case within the horse industry. It has been slow to seek and adopt new innovations. The work load has been a combination of long hours of inactivity compelled with a few hours of activity during feeding and cleaning. Because the graduate student involved in this study was female, we also propose to study the future role of women as horse farm workers.

SUMMARY OF HYPOTHESES

Therefore, based on empirical data gathered in personal interviews we hope to provide information on the following factors associated with the horse farm industry.

(1) The demand for labor in the horse farm industry, unlike other segments of agriculture is expanding.

(2) Technical development on the horse farm has lagged behind industry and general agriculture. By technical development we mean the extent to which labor saving machinery and methods have been adopted in the work patterns on the horse farms.

(3) Productivity, as measured by the work accomplished by horse farm workers as compared with time allocated for productive work, lags behind other phases of agriculture.

(4) The skill level as measured by the years of formal education necessary and the time required to learn the job on the horse farm is similar to other unskilled, routine occupations.

(5) New labor for the horse farms will shift from rural Negro males to persons displaced by mechanization in general agriculture, from the surplus urban labor force and to young white females.

(6) We suggest that the horse farm is characterized by lack of alternative occupational choices and by lack of opportunities for upward mobility.

(7) Return for labor will be low in the horse farm industry when the number of hours is compared with wages, fringe benefits and retirement programs.

(8) Generally speaking, a condition of underemployment exists on the horse farms.

Generally speaking, employment on horse farms pays a wage barely above the poverty line which is enhanced by the high dependency ratio in horse farm workers.

Each of these hypotheses will be explored utilizing responses of workers and managers on horse farms and from background information obtained from each respondent.

METHODS AND PROCEDURES

Because neither horseman or horse farmers were included in Department of Labor or Agriculture statistics, no information on labor was available to compare with other segments of the economy. Therefore, personal interviews from a prepared schedule were utilized to obtain information necessary to explore the hypotheses outlined for this study.

Procedures

It was decided to limit the study to thoroughbred breeding farms of the Inner Bluegrass region of Kentucky.[2] This decision was made because of the interest in particular problems associated with traditional employment practices common to the anti-bellum agricultural establishment. We consider this area to be an intensification of the factors common to the cultural heritage of the thoroughbred society.

Utilizing a variety of maps, directories and personal knowledge of the horse farms each farm was classified according to the acreage, the number of brood mares and the number of stallions. From this classification we developed three types of horse farms based on the number of horses per farm.

Type I - Small operations (farms having less than 15 mares and no stallions).

Type II - Medium operations (farms having 16 to 49 mares and less than 5 stallions).

Type III - Large operations (farms having 50 or more mares and more than 5 stallions).

A panel of four judges, all intimately involved with the horse farming industry in Central Kentucky were asked to verify the categorization and to make any necessary changes in the list of farms.

---

[2] Defined by the U. S. Geological Survey (including Fayette, Bourbon, and Woodford counties).

Sample Selection

From within the list of each of the three farm types, every fourth farm was chosen in a random method. A second sample was then drawn in the event the substitution was necessary.

For each of the farms included in the sample all the managers were then interviewed. Through the managers an attempt was made to interview the farm workers. It was thought, and proved to be true, that the only access to the workers was through the managers. Consequently, on some farms there was undoubtedly a bias toward selecting "good men." The interviewer attempted to minimize this bias by explaining to the managers the necessity of a representative sample and by asking (on the larger farms) for a variety of respondents according to age, race, occupation and "type" (definition left to the manager). Only two farm's managers did not allow workers to be interviewed. One of these managers choose to answer the questions "for the workers." He was encouraged to do so in order to get some idea of the social distance between his perception of workers conditions and those of workers on other farms. However, his "answers" were not included in any of the tabulations. Many managers were hesitant to allow workers to be interviewed for they feared "discontent" might be stirred among the workers. As another means of introducing some control in the worker populations, only year-round workers were interviewed. This precaution eliminated the jobs of foaling night watchmen, exercise boy, sales help and summer help.

We are the first to admit that certain biases are present in a study such as this. The horse society, by view of its wealth and social position is relatively closed. Outsiders are suspect, and in particular outsiders ask questions. We were only able to obtain data because the graduate student who conducted the fieldwork was the granddaughter of a prominent breeder in the area--even she was refused entry to a few farms.[3]

Interview Schedule and Interviewing

The interview schedule was designed to provide information of a general descriptive nature of the farms and organization of work systems. Information on the general characteristics and conditions of work were attained on each worker. Finally, questions were designed to measure work satisfaction and the future employment conditions on the horse farms from both the workers and the managers.

---

[3] Small operations (Type I) were underrepresented in that they were unknown, or the owner-manager could not be located. Also, the study period was during the pre-foaling portion of the year and many managers were in Florida for sales or vacation. But the nature of this study is exploratory and we do not generalize beyond the respondents.

The interview period ran from February 1 to March 9, 1970. A total of 28 farms were surveyed, 9 Type I, 10 Type II and 9 Type III. From Type I there were thirteen employees interviewed, fifteen from Type II and twenty-seven from Type III. The most difficult phase of the study was attaining an appointment and interview with the managers. To gain motivation for participation, the study was related to problems of labor shortage. Following the managers' interview the interviewer talked to workers in an office, tack room, or even a farm truck. Both the workers and the managers were encouraged to elaborate and comment on the subject matter in the questionnaire.

Findings

In addition to the general categorization of farms by type various other descriptive characteristics were available. There is some evidence to support the notion of differences by type and attitude toward farm labor problems. The most interesting were the small traditional owner-operator Type I farms where horses had been a family sideline for many generations. The most traditional relationship was an older Negro male who had been with the family for many years and doubled as a horseman, yardman and general man around the house. Where "our boy" had been lost, these farms relied on innovative, colorful and often unusual schemes for getting or keeping labor. These "hobby" farms were usually owned by persons who had a wide variety of resources from which to draw in solving their labor problems. They were also the least competitive in a business sense and held the most traditional attitudes toward labor. A second group within the Type I farms were the general farmers who had decided to board a few mares as an entry into the horse business. Because these men were reliant upon tobacco and cattle as the main source of income, they tended to maintain efficient labor practices with respect to the boarded mares.

For the Type II horse farms differences were noted according to the type of management. Hired managers were common and they tended to be less traditionalistic in attitudes towards labor. Among the large Type III farms differences in labor practices were observed on the basis of whether or not they bred for market sales or if they were hobby breeders for private stables. On the "luxury farms" largely "absentee owned" wages and benefits were good, but a low-man to horse ratio was maintained. The large Type III breeding farms where the owner was in residence, tended to make the best use of available labor.

Demand for Labor

We suggested in the introductory portion that unlike other agricultural industries the demand for the product is increasing--therefore the demand for labor is increasing. Table 1 shows the response of the managers to a question about the effect of a tight labor market on the agriculture industry.

TABLE 1. RESPONSES TO THE QUESTION (BY TYPE OF HORSE FARM). WHAT EFFECT HAS THE TIGHT LABOR MARKET HAD UPON YOUR HORSEFARM OPERATION?

Farm Type	None	Less Work Available	Have Cut Operations	Cannot Expand	Poor Quality of Worker	Total
Type I	6	0	1	1	1	9
Type II	3	1	3	1	2	10
Type III	4	3	0	1	1	9
Total	13	4	4	3	4	28

About half of all the managers reported they were feeling the effects of a tight labor market. The least effect were the small farms where only one person was employed. The Type I farm that complained of the quality of labor was employing a woman as a groom. The Type II farms which were forced to cut operations were the most tradition oriented with the lowest wages. The following quotes from Type II managers might provide some insight into supply and demand problems of horse farm labor.

> "Upon until 3 years ago I had no problems cause I had a crew who had been with me . . . but they are gone and now its gotten so I dread going around the horses cause I'm used to seeing horses cared for in a different way." The other one said, "Two men who had been with me 10-12 years quit to go on social security. I'm working two men now over 80 years because they are dependable. Until the government quits paying people not to work it's going to get worse and worse. . . . We used to have people come by to apply who had left a farm because it was going out of business. Now gypsies come by . . . hyppies! My normal source of labor are teenagers with no clothes and no experience. It's useless to advertise because applicants ask about money and hours, etc. If they ask about these things you have to write them off. If they don't ask about those things but just say, 'Yes sir, I want a job' then they'll be good. The last good man I had was a colored boy (40 years old) who was experienced and left a farm closing down. He didn't ask about wages, worked for 14 years and never missed a day, but then last year he went crazy."

The demand for more horse farm workers appears to be strong as evidenced by the comments of the managers, but the demand appears to be restricted to workers who share traditional values in work patterns. Managers characterize workers as not being dependable or as having "Saturday sickness." Another manager expressed the problem by saying "If a man comes to work I'll get something out of him, but you cannot sit down one night and plan for the next day. Young kids don't want to work seven days a week. Nobody does but me." Although, the demand continues high, the need appears to be selective.

Technical Development

Managers were asked to indicate if he had adopted any technological innovations recommended for the horse farm. The mechanical hot walker was not used on any of the farms, about one-fifth of the farms used the farm vacuum, and about a fifth used the electric groom. The best record was the run-in-shed where fifty-four percent of the farms had adopted the innovation. Generally speaking, the larger the farm the better the adoption, but a generally poor adoptive record is present in the Bluegrass region. The following quotation expresses some of the attitudes towards innovation:

> "In the future we are going to be forced to a 5-day week using two work forces, but no technical revolution can come for horses."
>
> "Technology won't work--nature has to take its course. Horses have to have personal care. Horses can't talk, people have to be personally familiar with them."
>
> One manager said "50 percent of the managers in Florida (where many innovations are used and accepted) were sent running . . . I mean were run out of Kentucky for being so damned onery. Now they are running big businesses." And from one of the larger luxury farms the response to questions about labor saving devices was "no, we're more extravagent."

Work Productivity

An examination of work routines for the year-round full-time employees showed a substantial amount of wasted time. The work schedule is basically the same, except that in the winter months the horses are turned out during the day and the summer they are turned out at night.

9:30 - 9:30 - turn horses out and clean stalls

1:30 - 2:30 - bed down stalls, feed and water (possibly brush) horses

4:00 - put horses up

For horseman, the time between 9:30 and 1:30 and between 2:30 and 4:00 is spent in gossip, talk, poker or watching TV. This work pattern is almost always characteristic of the larger farms. There is clearly a problem of non-productive time. On the more traditional farms the situation is best described by the following statement: "The men finish at 9:00, but if he is a capable horseman, he won't work with tobacco and hay--or he's no horseman."

Skills of Workers

There is fairly wide agreement that work on a horsefarm requires very little skill and that the skills of horseman (measured in terms of formal education) are low. Table 2 presents information on the formal education of workers by race.

TABLE 2. EDUCATION OF HORSE FARM WORKERS BY RACE

Race	Years of Formal Education					Total
	1-3	4-6	7-9	10-11	12	
Black	1	2	3	3	3	12
White	2	3	8	7	4	24
Total	3	5	11	10	7	36

Generally, these results suggest that little differences were present between blacks and white farm workers in level of formal education. However, the striking fact is that average education levels of the workers is low. The respondents which had graduated from high school tended to be the foreman and the younger workers.

The managers had different notions about what made a good horseman. Some contributed it to a calling, such as to the ministry, others felt that long years of training were necessary while others called upon respect as in the case of one manager--"People are forgetting that you need or should respect a horseman for his skill as a horseman. This has been forgotten in the Kentucky horse business."

We ask two questions of the workers to determine the skill level of their job and how long it would take for someone else to be trained for their job (Tables 3 and 4).

TABLE 3. RESPONSE TO THE STATEMENT: "YOUR WORK REQUIRES ALMOST NO SKILL"

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
5	8	4	12	2

N = 31

TABLE 4. RESPONSE TO THE QUESTION: "HOW LONG WOULD IT TAKE TO TRAIN A PERSON FOR YOUR JOB?"

Less than one week	1-2 weeks	2-4 weeks	4-6 weeks	2-4 months	4-6 months	6-9 months	1 year	More than one year
8	4	1	2	1	0	2	2	10

N = 30

These results suggest that some disagreement is present on the skill requirements and the amount of training necessary for jobs on horse farms. The responses are almost completely bimodal, indicating almost no skill or a lot of skill. These results could be explained by the fact that about half of the jobs on a horse farm do really require skill or that some workers over-represent the amount of skill necessary for their jobs.

When managers were asked to describe what they looked for in prospective horseman they listed such attributes as regular, dependable, and the desire to work. Seldom was the necessity of skill mentioned. We are forced to conclude that the skill requirements of horseman are low and the persons that fill these jobs are low in skill.

Source of Workers

The results presented in Tables 5 and 6 show that in general the small farms Type I relied on men coming from general farm work. Type II farms relied on the unemployed and boys dropping out of school, the large farms tended to hire from the ranks of the unemployed and from other horse farms. There was a general preference among managers for "green" men and they did not want men off the track[4] for the men from the track were used to less work and more pay.'

TABLE 5. SOURCE OF LABOR FOR HORSE FARMS

Type Farm	Unemployed	Other Farms	Both	Farm Schools
Type I	1	6	2	0
Type II	4	1	1	4
Type III	4	4	1	0
Total	9	11	4	4

TABLE 6. FUTURE ROLE OF WOMEN IN HORSE FARMS

Farm Type	Increasing	Decreasing	No Change
Type I	7	1	1
Type II	5	0	4
Type III	7	0	2
Total	19	1	7

There appears to be some reliance on school children for labor, but most workers continue to be drawn from the ranks of the unemployed and other farms. Most new workers to horse farms were older men who could not get jobs elsewhere.

With regard to women, most managers agree that the future of women as horse farm workers is likely to increase. However, of the large numbers of managers reporting that women applied, few reported that they were hired.

---

[4] "Off the track" means backstretched help--men who move with racing stables or are employers of a particular track.

Pay Rates for Farm Workers

Like all farm labor, horse farm workers receive low wages. Some of these comparisons may be seen in Tables 7, 8, and 9.

TABLE 7. PAY RATE PER WEEK BY RACE

Race	Less than $60	$60-$80	$80-$100	More than $100	Total
Black	1	7	2	2	12
White	3	11	8	1	23
Total	4	18	10	3	35

TABLE 8. HOUSING PROVIDED TO WORKERS BY RACE

Race	Receive Housing	Do Not Receive Housing	Total
Black	0	12	12
White	15	9	24
Total	15	21	36

TABLE 9. ANNUAL FAMILY INCOME OF HORSE FARM WORKERS BY RACE

Race	$3,000-$4,500	$4,500-$6,000	$6,000-$8,000	Over $8,000	Total
Black	7	3	1	0	11
White	12	6	5	1	24
Total	19	9	6	1	35

Most of the workers in this study received less than $80 per week for their work. Such a figure would be reasonable if the work week were only 40 hours. However, most work seven days per week and ten or more hours per day. Despite alleged discrepancies in payment between blacks and whites our study does not show this trend. Both races appear to receive similar, but low pay. The only difference we noted was for housing, where no blacks in the study received on farm housing. Other than an attempt to prove segregation we could explain this difference by the presence of race horse villages dispersed among the horse farms which are populated by blacks. Housing is also used as an incentive to young workers to make work on the horse farm a life's work.

Most of the workers reported family incomes of less than $6,000 per year. This figure includes the wages of all family members in one year. Most of the workers reported that their wife was employed in some capacity, but strangely, very few were employed as private household workers. If we can accept these figures as reliable, we can only conclude that over half of the workers and their families in this study are living in or on the edge of poverty. The comments of one manager are particularly illustrative: "because there are no retirement programs many men continue working until they are 75 or older . . . many men stay on the farm until death." He cited several indicators of a paternalistic system--many farms keep loan funds and one farm offered maternity care which not only provided a benefit but insured a continual work force. Several workers reported that the horses received better care than the workers, but then, they cost more.

TRENDS IN THE LABOR SITUATION ON HORSE FARMS

To this point in the paper we have provided some insight as to the characteristics of horse farms, their managers and workers. The task is now to explore in more depth some of the labor trends in the industry.

Young Blacks are not Choosing a Work Career on Horse Farms

The interviews with managers and workers provided strong evidence for this trend, although the causes are more obscure. One manager of a very large farm reported that the composition of his work crew has dropped from 90 percent to 20 percent black, although he admitted a conscious effort to keep the work force integrated.

There is some evidence that positions within the system are closed at a certain level to blacks. The highest position held by a black was foreman on a Type I farm. This job was equal in pay to head horseman on a Type III farm. No black men had white men working under them. That the system was not closed to upward mobility by whites is suggested by the finding that several managers and foreman on Type III farms had started at the bottom of the ladder. Most middle aged black men were found in the positions of horseman, either general or specific. No middle age whites were in this position. In addition, when asked about their future on the horse farm, blacks were generally more pessimistic than whites.

Statements by a manager and several workers provide some idea regarding the experience of blacks on the horse farm:

> "Colored people who like horses are more dedicated than white people who like horses." . . . A worker on the farm pointed out: "All the blacks worked on horse farms. It was a family thing. I don't recall anybody who didn't." An older black reflected on the lack of interest of young blacks in horse farm work: "The younger generation don't want to be bothered with horses. He wants to be like the man with the money and go to the races. There's not gonna be anybody apt to work and I don't know what's gonna happen when us old guys are gone." One of the older traditional managers agree with the worker: "Older colored men are good, but they are too feeble--the young colored are impossible; you can't tolerate them; they don't seem to be at ease around horses the way their cousins were--the farms are just too dull for them."

This study showed that the median age for black workers was 45-55 years as opposed to less than 30 years for whites. Also, the median time on the farms was eight years for blacks and less than three years for whites.

Based on these results we suggest that young blacks, the traditional source of labor for horse farms, will not choose this as a career route.

Trend to Use Labor Displaced by General Agriculture

We suggest that unskilled labor displaced by the mechanization of general agriculture will increasingly fill vacant positions in the expanding horse farm industry.

The closest location for labor is from the plateaus of Eastern Kentucky and from the tobacco and cattle farms in Central Kentucky. The portion of the Bluegrass (Bourbon county) nearest Appalachia relied almost exclusively on mountain labor. Of those men interviewed from Appalachia counties, most reported having been in tobacco and general farms which were not competitive economically. One manager pointed out that the pattern on his farm was for mountain people to come to the farm through connections with people already working on the farm--this cycle appeared to be a standard migration pattern.

In comparing horse farms, general farm, industrial and track work, most workers preferred horse farm to industrial work and the most repeated comment was that the worker preferred the out-of-doors, the variety and the freedom in the work on the horse farms.

We are able to conclude that for horse farms close to a displaced agricultural labor source will benefit from this surplus. However, the Lexington area farms are likely to rely upon blacks and unemployed categories of whites. We also suggest that the traditional outdoor satisfactions of agriculture labor appeal to many horse farm workers.

Unskilled Urban Workers will Find Employment on Horse Farms

This trend is difficult to establish in that unskilled displaced urban workers may not perceive horse work as a viable source of employment. However, our statistics show that 25 percent of the white workers and 42 percent of the black workers come from Bluegrass cities (mainly Lexington). Also, the turnover rates as shown in Table 10 indicate that urban unskilled work force would have ample opportunity for entry into the horse farm work force. Type II horse farms appear to have the most problems in turnover, but the tremendously high turnover rate of the entire industry indicates some real problems within the system. A turnover rate of one-third of the workers is characteristic of about two-thirds of all the horse farms studied.

TABLE 10. TURNOVER RATES PER YEAR BY FARM TYPE

Farm Type	Nil	One-third	50-75%	100-300%	Total
Type I	6	1	2	0	9
Type II	2	0	6	2	10
Type III	2	5	2	0	9
Total	10	6	10	2	28

We suggest that the high turnover rate of labor on horse farms is symptomatic of many labor problems which must be met if the industry is to survive. One of the opportunities, of course, is for urban unskilled labor to move into these positions.

Women Will Increasingly Find Employment on the Horse Farm

Previous data suggested that most managers felt women would likely find future employment on horse farms, but that women have not been widely employed. Women have been allowed on the farms at two points which do not violate the traditional concept of a woman's place. Young women, white middle or upper middle class, primarily from the university have entered the market as exercise girls (a superior position in prestige and pay to that of groom). Evidence of this movement was reported by managers and horseman who indicated that girls "hounded" them for work on the farms because of their love for horses. The managers response has been negative-hiring women only when they were "backed in the corner" as at sales time when the work load is heavy. Reasons for not employing women focused on the morality issue. Managers suggested that sexual problems might arise from the integration of the work force; exposing the women to indecent language and sexual overtures from the men they would be working with and external problems that might arise from "jealous wives" or the lack of facilities for women. One manager in the area apparently had trouble with a jealous wife because this story was repeated by three other managers--none of which planned to hire women in the future.

The second point of entry for women has been that of manager. There are seven women managers in the study and all entered the position through family ownership. In most cases the women manager employed a foreman who handled much of the work, expecially with regard to breeding--women are traditionally not allowed around the breeding shed. The two women on Type I farms were the exception for they employed no foreman. We see an increasing number of women in the horse labor force, but entry will be slow. The traditional conception of a woman's place will be slow to change in the closed Bluegrass horse society.

SUMMARY

We claim no representativeness in this study, rather we feel fortunate that any entry into the horse farms was obtained.

The picture that emerges is a depressing one. We see an industry which is plagued by a magnitude of labor problems that they are almost unsolvable. The high turnover rate is symptmatic of worker dissatisfaction. Wages are low and work routines are far from efficient. The horse industry is suffering a quality loss of workers as older blacks retire and young blacks choose better paying industrial work. The black man is also plagued by a lack of upward mobility--institutional racism by accident or design is present in the horse industry.

We also see an industry that has been slow and even resistant to adopt any technological innovation. This record is even more surprising when one considers the impressive technological advances in other sectors of agriculture. There is even evidence that Kentucky is sticking to tradition where horse farms in other states are rapidly mechanizing to meet the increased demands of race tracks.

But most of all we see a group of managers and owners bound by traditions which have been long discarded by other industries in the 20th century--a resistance to innovation, inability to change work routines, the reliance on tradition instead of new methods in handling horses and of course hiring practices which reflect discrimination against women and which do not make for good employer-employee relations. While feudalistic relationships have permeated this industry until the recent past, they are being very rapidly eroded under pressure from an urban, industrial labor market.

DEVELOPING RELATIONSHIPS BETWEEN SOCIAL SCIENTISTS IN PREDOMINANTLY WHITE AND PREDOMINANTLY BLACK LAND-GRANT COLLEGES AND UNIVERSITIES

Bardin H. Nelson
Professor of Sociology
Agricultural Economics and Rural
Sociology Department

The basic purpose of this paper is to explore opportunities, potentialities and alternative courses of action for enhancing the working relationships between social scientists in the predominantly white and predominantly black land-grant colleges and universities.

In our age of complexity, no one institution or type of institution can develop the capabilities or competencies necessary to undergird social and economic development. The complexity of social and economic development places emphasis on multi-disciplinary and multi-institutional approaches.

The black colleges where approximately one half of all black students are enrolled and which in 1968 accounted for 80 per cent of the degrees earned by blacks are in many ways impoverished and deprived. Federal financial aid to higher education in 1969 was over four billion dollars. Only 119 million dollars went to predominantly black colleges and universities.

In reading a chapter entitled "University and Research" in a recently published book, I noted this figure 119 million dollars in the following statement: "The office of the Secretary of Defense eash year publishes a listing of the 500 principal contractors who perform research and development work. Included in this group is a list of non-profit institutions. These are led by the Massachusetts Institute of Technology (MIT), which received $119 million from the Pentagon in fiscal year 1968..."[1]

Land-grant institutions predominantly white received $2,300 per student as compared to $1,365 per student received by the predominantly black land-grant institutions.

Theodore Schultz presents some comparisons in educational expenditures that are relevant to both Negro land-grant colleges and southern white land-grant institutions. He states:

---

[1] Seymour Melman, Pentagon Capitalism, (New York, N. Y.: McGraw-Hill Book Co., 1970) p. 98.

> The other issue is the extraordinary extent to which the predominantly Negro land-grant colleges have been starved financially. A crude, over-simple comparison of the 16 "Negro" land-grant colleges, four Southern white institutions, and the University of Illinois will help tell this story. I selected and classified them so that the enrollment would be about equal. In 1962, the 16 Negro colleges had a total of nearly 36,000 students; the four southern white land-grant institutions selected (Auburn, University of Arkansas, Mississippi State, and the University of Georgia) totaled close to 35,000; and the University of Illinois, also a land-grant institution, 34,000. The income available for education and general purposes in millions of dollars was 32, 72, and 98, respectively. Income (funds) obtained from the federal government, again in millions of dollars, was 1.4, 18.7, and 20.8. Turning to expenditures, two items will suffice: for scholarships and fellowships, .5, .6, and 4.2 million dollars, respectively; and for organized research, patently ever so unequal, .2, 16.6, and 23.8 million dollars. Thus runs the sad record of discrimination against Negroes even in the case of our land-grant institutions.[2]

The United States Department of Agriculture, recognizing the need for research development at the black institutions, has placed a liason officer at each black land-grant institution. Line items have also been included in the federal budget for the further development of research and extension activities at these institutions.

In view of these developments, the question could be raised as to why the concern with the relationship between white and black institutions? First of all, the continued integration of minority groups into American society constitutes one of our gravest organizational problems. Secondly, minority groups including blacks constitute a vast reservoir of relatively untapped and undeveloped human resources. Thirdly, sociologists should be foremost among groups cognizant of the relative absence in their ranks of minority group members. Fourthly, the complexity of social and economic development is causing a greater emphasis on multi-disciplinary and multi-institutional approaches.

---

[2] Theodore Schultz, "Urban Development and Policy Implications for Agriculture," Economic Development and Cultural Change (Chicago, Ill.: The University of Chicago press, 1966) p. 7.

A multiplicity of research areas directly involving black people are awaiting study. The effects of cultural deprivation are fairly well established. The pre-school black child has limited opportunities for developing symbolic capacity which then provides the foundation for higher conceptual developments and hence motivational relevance. Our knowledge of relevant reference points and persons for developing black youngsters is all too meager.

Despite substantial efforts to change the situation, the great majority of black students attend inferior elementary and secondary schools. What organizational procedures, changes in curricula, methods of teaching are required to change a school system that does little more than place students on a treadmill occupied by their parents and related minority members? What happens to a school program once a school has been integrated? What attitudinal changes occur on the part of black students, white students, black teachers, white teachers, black parents, and white parents? What are the basic motivational problems involved in vocational education and skill training?

Almost every specialized area in sociology with the possible exception of demography is either lacking or totally devoid of relevant research developments concerning black people.

As black institutions move toward providing remedies for some of these inadequacies, the expertise for designing and conducting research will obviously be limited. Data processing facilities and specialized personnel in methodology and statistical procedures may be inadequate or not available. Institutions with facilities and trained research staffs can be of tremendous help to black institutions as they seek to improve their competency in research.

Obtaining research funds, special grants, fellowships, etc., often depends upon careful design and preparation of research proposals. Personal knowledge of requirements and approach to evaluation of proposals by particular agencies, foundations, and other research funding groups may spell the difference between acceptance or rejection of proposals. Thus, help in designing research could be a significant beginning in the development of a significant research program at a predominantly black institution of higher learning.

Individuals with little or no research experience are prone to conduct "here and now" research. After all, there are so many practical questions that need answers. Theory may seem so remote from the situations they propose to study. That knowledge requires continuous validation and if it is to endure over space and time must fit within a greater system may not be particularly appreciated by a beginning researcher. "Here and now" research can be compared to a brick utilized as a door stop for a construction shack. This brick met all the tests necessary to become a part of a developing functional entity, but instead it was utilized to solve one momentary problem. When construction was completed, it was thrown aside with other useless rubble.

The beginning researcher may have some difficulty understanding that the review of literature gives us the particular specifications for designing our brick for the special niche it will fill in the developing structure.

The excessive attention given over to formulation of hypotheses, carefully stated concepts, specification of dependent and independent variables, devising of instruments for collection of data, selection of tests of significant differences and other statistical measures, use of controls and other such steps are sometimes viewed as so much redtape by the neophyte. Cooperative relationships under these conditions almost require that the tried and proven researcher possess almost equivalent expertise in the art of teaching.

In assisting the black professional with the design and execution of a project that is to basically become a part of a predominantly black institutional structure, the assisting experienced professional is prone to play a conservative or non-aggressive role. This role may leave the less developed researcher in jeopardy if he is given more responsibility than he is equipped to administer. Here, the utmost in sensitivity and tact is required. Few professionals enjoy being in a vulnerable position, particularly in the presence of peers or administration. At one time in my career, I was cooperating with an inexperienced professional in the design and execution of a project including construction of the instrument and training the interviewers. I thought I was exercising extreme maturity by allowing the inexperienced individual to serve as leader of the group involved. Before realizing my error, I received a call at a very late hour one evening. I was asked, "Would you please do me a personal favor and be more aggressive in our sessions tomorrow?" A better learning situation probably exists where individuals are not forced to call for help.

Another problem concerns preparation of papers or publications. Probably the most interesting section of a paper to the neophyte in research or to one seriously concerned with some immediate problem is that which bears the heading "Implications." In studies where findings are somewhat dramatic or fit into some very logical problem solving framework of thought, there is some tendency toward sweeping generalizations. An extreme concern with problem solving becomes serious when oversimplified conclusions are found throughout a paper or manuscript.

A first problem for the researcher is to learn what science is and how it differs from other kinds of thought and writing. Ideas may be materials for intellectual activity but they do not constitute knowledge. Ideas are frequently more fascinating to a beginning researcher, because ideas are not subject to the restrictions or limitations imposed upon knowledge. The social scientist must deal with ideas in terms of whether they are or may become knowledge. He may also deal with ideas in terms of their relationship to the interpretation of knowledge.

Any social scientist must struggle with the problem of bias. If a researcher allows his previous notions or belief to significantly precondition his findings, his findings are no better than his previous ideas. He has merely found another way to convince himself that he was right all the time.

The predominantly white land-grant institution has a marvelous opportunity to set the example in healing what may be one of the deepest wounds in American life.

What are some tangible activities that could build stronger relationships between social scientists in predominantly white and predominantly black institutions?

1. Reciprocal arrangements for guest lecturers, special seminars, etc.
2. Faculty exchange.
3. Research teams involving staff from both institutions.
4. Joint class meetings or field trips.
5. Feeder systems including financial assistance for graduate students.
6. Planning assistance in curricular matters, new course development, research design and proposals, etc.
7. Establishment of Centers of Excellence in particular fields of study at selected black land-grant institutions.
8. Development of special programs within professional organizations to encourage participation by students and staff at black institutions.

A special committee of the Rural Sociological Society has just recommended that the Society offer its services in obtaining funds and staff for a Center of Excellence in Rural Sociology to be located at one of the black land-grant institutions.

These steps in developing relationships are viewed as catalytic devices which should ultimately result in well structured continuous team effort involving both white and black social scientists. Unfortunately one of the first results of cooperative efforts of the type described is a loss of the black social scientists by the black institution. Such possibilities should be anticipated in order that such efforts to develop expertise not leave any institution in jeopardy.

STYLE OF LIFE AND COMMUNITY DEVELOPMENT

BY

John C. Belcher

I. Introduction

Amos Hawley equates community development to the process by which man adjusts to his habitat. (1944:405). Other writers have stressed the existence of a "natural balance between numbers and resources, resulting in a relatively stable spatial and sustenance relation, found in almost all isolated people. (Gettys, 1940:470). In most rural areas of the world there is an amazing equilibrium between the way of life and the natural environment. Carlton Coon (1958) illustrates in Caravan how all aspects of life in the Middle East tend to be in harmony with the resources. It is a section of the world where nature has been niggardly. The climate is often hot and dry. There is very little rainfall. Hundreds of years ago there may have been forests and better soils. Man destroyed these resources through exploitation but eventually a way of life was developed that remains compatible with nature.

A basic principle of community development has been that change must be a modification of the existing culture. There is the general belief that failures in action programs may be attributed to an inability or unwillingness to base change on culture. There is a large body of literature that has accumulated through the years illustrating situations where the culture was ignored and as a consequence action programs failed. (See: Spicer, 1952; and Foster, 1969)

The theme of this paper is that there are situations where the base for change must be the environment rather than the culture. In much of the world today there is no equilibrium between man and nature. This paper describes one rural area of the world where stability existed before the arrival of Europeans, how it was broken by the Spanish, and at the present time remains to be restored.

The first European city in the New World, La Isabela, located on the northern coast of what is now the Dominican Republic was established by Christopher Columbus in 1493. (Rojas, 1944:9). The present capital of the country, Santo Domingo, was founded by the brother of Columbus, Bartholomew, in 1496. (Rojas, 1944:374). Consequently, the period of occupation in the Dominican Republic since settlement by Europeans is the longest in the western hemisphere and covers a span of nearly five hundred years.

After the first voyage of Columbus in 1492, the number of inhabitants in what is now the Dominican Republic grew little, if any, over nearly a 400 year period. There were, however, great changes in the characteristics of the population. The Indians have completely disappeared. Many of the Spanish had migrated to other new nations in the hemisphere in the sixteenth century. Thousands of the French have come and gone. Slaves were imported. There was a tendency for the population to be concentrated in fewer localities such as Santo Domingo and Santiago, whereas the original population had been quite dispersed.

The first official census of the Dominican Republic in 1920 reported a population of 895,000. Only fifteen years later in 1935 the population had nearly doubled to 1,480,000. The rate of growth was reported as somewhat less during the subsequent fifteen years, reaching 2,136,000 in 1950. Since that date growth has been phenomenal. The census of 1960 counted 3,047,000 with estimates for 1969 at 4,174,000. The census of 1970 may be expected to show between 4,300,000 and 4,400,000 inhabitants. All the evidence points toward further growth with resulting pressures upon the land unless the patterns of life are changed.

2. Pre-Columbian Stage

Just what was the situation in the Dominican Republic before the arrival of the first Europeans. Indications are that there was a balance between man and his environment.

There are estimates that the island of Hispaniola had a population of over 1,000,000 when Columbus and the Spanish arrived in 1492. The inhabitants were the Arawak Indians.

The Arawaks were an agricultural people who prepared the ground for planting began by clearing the woods, probably by girdling the trees. Dead materials were disposed of by fire. Digging was accomplished with a pointed and flattened stick.

The earth was heaped into mounds (montones). These mounds varied as to height and dimensions. Some were described as being knee-high and several feet across, and more or less round. They provided a loose, well-aerated soil for root crops. Upright, scandent, and climbing plants would be placed in the same mound, making an effective ground cover against soil erosion.

The clusters of mounds served as balks to sheetwash. The area of the mounds was known as a conuco - which name is still used in the Dominican Republic as well as some other Spanish islands.

Most of the hills and mountain slopes with sufficiently deep soils were reported under cultivation at the time of Columbus. Shifting cultivation did not appear to exist as in many tropical areas. Sauer (1966: 52) reasons that because it took so much labor to make the montones and remove the roots of woody plants that the Indians found it easier to maintain them than start new clearings. Root crops removed little mineral fertility and their leaves and stems returned organic matter and potash. The growing season was continuous and the ground was never without plant cover. Consequently, a conuco would have remained productive for a long time with little loss of fertility or erosion.

The conucos were planted largely to root crops which were the main source of nutrition to the Indians. Most of these crops, principally

Yuca and sweet potatoes, were propogated by stem cuttings or other forms of vegetative reproduction. Bitter yuca was the great staple of the Caribbean. Stem cuttings provide tubers in one year but were generally harvested in a year and a half. What was required for food would be taken from the conuco at any time during the year. Cuttings would at the same time be placed in the soil to replace plants harvested.

The houses were round, bell shaped structures constructed by setting upright poles in the ground with longer ones converging to a peak. Vines were used to lash them together. Palm trunks were split into narrow strips for sheating. Palm fronds, or thatch from grass or pinnate palm leaves were used for the roofs. (Sauer, 1966:63).

Early reports were that the Indians were a gentle, happy people enjoying a healthy, although primitive subsistency existence. Some authorities believe Hispansota could have supported a population of several million without destroying the ecosystem under the patterns of life then existing.

However, new diseases, suicide following disruption of the established way of life, starvation, slavery under wretched conditions, and much wanton murder took a terrific toll within a few years. There were only a few hundred Indians in 1525 when those remaining were rounded up and relocated. Today there are no remnants of these Indian groups, (Rojas: 1944:22).

3. Styles of Life in the Dominican Republic

Practically all Dominicans speak Spanish, are Catholics, and are native born. People knowledgeable of the nation consider its population to be culturally homogeneous. The paper takes no quarrel with this conclusion but does stress the existence of differences in "style-of-life" within the country. Style of life is defined as a configuration of cultural alternatives existing within a society. Indicative of variations in style of life in the rural Dominican Republic are such things as source of income, land tenure patterns, and existence of shifting agriculture.

There are rural communities where income is principally derived from cutting leaves from one species of palm tree to be used as a thatching for roofs, another where beans are grown, still another where coffee is produced, and still others where almost all income is from the sale of potatoes, peanuts, or sugar cane.

In some areas there is shifting agriculture but elsewhere the fields are fenced and have remained fixed for generations.

Some places the people are squatters on government land. In other sections they have invaded former estates of Trujillo. There, of course, are people who own their land or rent it, paying rents in cash or kind plus many who are permitted to occupy land or houses of relatives or employers.

The Central Mountain range tends to divide the nation into three regions: North, South, and East. Regional distinctions in speech, food habits, and housing exist that reflect style of life variations.

This paper is concerned with one style of life where there is an imbalance between man and nature. The village of Arroyo Limon is used to illustrate.

4. Current Illustration.

Arroyo Limon is located along the southern fringe of the Cordillera Central about 25 kilometers north of San Juan de la Maguana at the confluence of the Rio San Juan and Arroyo Limon.

Indications are that thirty years ago there were but two or three families residing in what is now Arroyo Limon. At the time families identified with another settlement to the north. Descendents started constructing new homes to the south along the road. About six years ago there was an influx of people displaced from another village as a result of litigation over the ownership of lands they occupied. Others were displaced by construction for a new irrigation project. Present day Arroyo Limon may be considered only about six years old.

An elderly man owns most of the land in Arroyo Limon. Another family has the property adjoining his to the north. The residents of the community have different arrangements with the owner. His children have use of some plots, others are permitted to occupy a nonproductive parcela without charge, while still others pay an annual rent. There are a few houses of squatters along the road right of way and the river. Most of the residents are crop renters who give the landlord one-third of the harvest. Most of the families with able bodied workers have conucos in the mountains where they farm government land.

Level of Living: Most of the population of Arroyo Limon lives in extreme poverty. The homes are usually small, two room structures with dirt floors, walls of tablas de palma, and roofs of yagua. There are several smaller, poorer structures with walls of yagua. These materials are brought in from coastal sections. Most of the homes have a separate structure without walls for cooking. A few of the homes have a clay platform for cooking but most have only three stones on the ground. The poorest individuals cook on the floor in one of the two rooms in the home.

Most families seem to eat one meal a day with only one dish being served. Yuca and corn are main food items. Meat appears to be consumed in the average home less than once a month. Practically no people in the community drink milk. None is marketed, and only one family has a milk cow. A few families do have a pig or two, but they are usually sold rather than eaten. Most families have a few chickens of poor quality. Eggs are scarce and are considered a delicacy.

There is almost a complete absence of fruits in the diets. Fruits are practically non-existent, although a few families do have papaya.

Citrus fruits will grow in the area, and will produce adequately if not bountifully. There are some plantains but few bananas. Mangos and avocadoes are numerous on the west side of the river but not in Arroyo Limon. Many families have one or two egg plants, which are perennial in the Dominican Republic. Although they do well and are relished, no one plants enough to materially aid his diet.

Agricultural Practices: Subsistence crops such as yuca, corn, and yams tend to be planted around the home with beans planted on larger acreages. Commercial fertilizer is not available, and no use seems to be made of manure or compost to increase yields.

The machete is almost the sole agricultural implement. It can easily be carried over mountain trails. One can be used to cut trees as well as grass, harvest root crops, dig holes for planting, or cultivate. The proficient worker can accomplish much with a machete in a day. Yet, its use is indicative of primitive agricultural practices, low yields and lack of knowledge of scientific developments in agriculture. Agriculture in Arroyo Limon cannot adequately support the present population with its current style of life.

Most of the men are underemployed and may be found sitting around the house at all hours. There is a generally accepted belief that each year the soil is becoming less productive. There is a realization that land in the vicinity is inadequate in both quality and quantity to provide a satisfactory livelihood from traditional crops. The only solution in the minds of the residents of Arroyo Limon, as well as those from the more isolated communities, is for the government to give them agricultural land in other sections that would be productive. There would be few, if any, serious objections to the removal of the entire population to another area. The movement of these families would bring a halt to agricultural operations in mountain land unsuitable for agriculture.

Money is needed in Arroyo Limon for clothing, seasonings, and the like. Never does there seem enough money to purchase the bare necessities of life. There is food produced at all times of the year. Without climatic pressures to save food for the future and with the need for money, practically all the major agricultural harvests are promptly sold.

Throughout the mountain region there is an almost pathological desire for money for the present. The future will be sacrificed for money today. The desire for money is not greed to accumulate wealth, but to purchase things that are wanted. Plans are not made for the future, the problems of the day are too severe. There are relatively few items that can be produced for a ready market-these are crops that are standard in the world of commerce: rice, beans, and peanuts.

Agricultural production in the mountains is geared toward what will readily sell rather than toward what is most suitable for the soil or what will bring the greatest returns to the producer. This tendency creates serious ramifications for the future population of the mountains as well as reforestation of the area.

Beans are produced in all sections of the mountains and occupy much of the land under cultivation. At the same time they are the most destructive crops from the stand point of depletion of soil fertility as well as erosion.

Beans are followed by subsistence crops that tend to be planted together in the conuco following the pattern of the Indians in the days before Columbus: yuca, sweet potatoes, corn, plantains, etc. The principal subsistence crop is yuca. Yuca is less destructive to the soil. It can be planted for a relatively long period of time before abandonment of the conuco is necessary. One reason is that it takes from a year to a year and a half for the yuca to mature whereas up to three crops of beans may be harvested a year in some of the more productive soils. The caloric production per acre of yuca tends to be greater than any other crop produced in the mountains which theoretically means less land would be needed to care for the needs of the family.

With beans there is a highly efficient although somewhat primitive marketing system. All people in an area plant and harvest beans about the same time. At harvest there are buyers waiting near isolated villages like Arroyo Limon with cash and burros or other vehicles waiting to purchase and transport the beans to central markets. There is no such efficient system for the subsistence crops like yuca.

Shifting cultivation is characteristic of many undeveloped areas of the world where private property in land is not institutionalized. In the Dominican Republic it consists of the practice of cultivating a plot for perhaps three to five years and then abandoning it as productivity declines.

5. Conclusions:

a. Agriculture has been practiced in the Dominican Republic for hundreds of years. The Indians produced essentially the same crops as modern Dominicans. Some authorities estimate that Hispaniola contained only a few thousand Indians at the time of Columbus and others state over a million. If the latter estimate is correct, it would indicate that almost all the arable areas of the Dominican Republic were under cultivation at some time or other prior to the start of European settlement. It was a subsistence style of agriculture where there was an equilibrium between man and the environment.

b. Neither census of agricultural reports nor other available documentary evidence give much insight into the present existence of shifting cultivation or its development. Older campesinos indicate that agriculture in some of the mountain sections--forty or fifty years ago was different than that which exists today. -- Forests were cleaned for conucos which were planted for five years at which time it was abandoned and would return to young forest in two years. It was a subsistance style of life. There is very little clearing of trees today. Seldom does a fallow field have the opportunity to become forest again because of grazing and fires.

c. Arroyo Limon campesinos report having cultivated the same conuco for, perhaps, 10, 15 or 20 years. Yet a tendency is revealed for the conuco to be established toward the bottom of a hill and inch upward a little every year. This upward movement appears to be a very general practice but is by no means universal. There are some who abandon a small swath at the bottom as more is added at the top. These people tend to plant the entire field to one crop such as peanuts, yuca, or beans and corn. Another pattern is to plant beans in the most fertile land at the higher elevation with yuca, sweet potatoes, and the like in the central section. At the bottom in the more eroded, and less fertile soil, guandules, bananas and plantains are planted.

d. By producing beans for the cash market, the campesinoes have become peasants according to Wolf's definition.(1966:2-4). An imbalance with nature has been created as the soil fertility is rapidly depelted through over cultivation and erosion. A neotric life style has become increasingly apparent.

Gonzalez makes a distinction between traditional and what she terms "neotric" societies. The neotric society is one whose cultural identity is obscured. (1969:102). These societies tend to develop in the urban areas of developing countries where migrants settle and break ties with traditional cultures and communities. (Gonzalez, 1969:141). She states that the traditional society is a socio-cultural system with a structured self-sufficiency supported by strong ideological sanctions. The neotric society has more shallow cultural roots in the absence of traditional integration mechanisms. Such a group must have a built in capacity for change or be annihilated. (Gonzalez, 1969:10). It is one created by the conditions to which it becomes adapted. (Gonzalez, 1969:132).

Numerous communities, including Arroyo Limon, in the mountains of the Dominican Republic meet these criteria except that they are not isolated societies and are a part of the general culture pattern of the country. It would appear more appropriate to characterize these communities as having a "neotric style of life" rather than culture.

Such usage departs from that of Gonzalez by stressing culture rather than structure and by moving from the societal to a sub-societal level. However, the study of Gonzalez is largely descriptive and this adaptation seems consistent with her frame of reference.

The community of Arroyo Limon illustrates what is here identified as a neotric style of life. The area was first settled less than fifty years ago hundreds of years after the Indians disappeared. Indications are that these people have a way of life that was first brought to the mountains in the nineteenth century by people fleeing from revolutions in the low lands.

Major food sources are similar to those elsewhere in the nation as is the housing. Most of the construction materials for homes in the mountains is from split palm tree trunks, fronds, and leaves. In the vicinity of Arroyo Limon these materials have to be carried great distances. Yet the area has been surrounded by forests of pine and there is much granite suitable for construction.

There have been some modifications in Arroyo Limon in the traditional culture of the nation because it just does not provide answers to the problems faced daily. Cultural roots are shallow. There appears to be a willingness to accept change. However, the natural resources of the vicinity do not permit the strengthening of traditional Dominican culture. A new style of life must be developed within a short time if the group is to survive. It is the opinion of this writer that a new life style must be developed that is compatible with what currently would be termed the local ecology.

This conclusion has ramifications for community development elsewhere. Certainly, one would except successful community development in a traditional society to be based on modification of the existing culture. On the other hand, a neotric society has shallow cultural roots because the style of life is not compatible with the environment in which it is located. Under the circumstances there probably would be relative resistence to socio-cultural change. A new cultural system might be imported by change agents; however, it, too, might not be equilibrium with the environment. Consideration should be given to basing community development for neotric groups on the environment in order to establish harmony with nature.

The situation in Arroyo Limon is not considered unique in the world but a common phenomenon is many rural areas where traditional peoples have undergone peasantization through urban influences. The neotric style of life must have a different form of community development than for a traditional style of life.

This conclusion is implied in the work on Goodenough (1963:17) who states "when we look at actual development enterprises, we discern two different approaches or emphases. One concentrates on changing the environment or physical conditions in which the communities members live, the other in changing their customary practices." It is obviously essential to have the client communities cooperation when change in customs is the immediate objective. (Goodenough, 1963:18). With the neotric community, however, modification of the environment becomes the immediate objective with cultural change an indirect, latent effect.

REFERENCES

1958 Coon, Carlton L. Caravan: The Story of the Middle East. (Rev. Ed.) New York: Henry Holt and Company.

1969 Foster, George M. Applied Anthropology. Boston: Little, Brown and Company.

1940 Gettys, Warner E. "Human Ecology and Social Theory." Social Forces. XVIII, pp. 469-476.

1969 Gonzalez, Nancie L. Solien. Black Carib Household Structure. Seattle: University of Washington Press.

1963 Goodenough, Ward Hunt. Cooperation in Change. New York: Russell Sage Foundation.

1944 Hawley, Amos H. "Ecology and Human Ecology." Social Forces XXII, pp. 398-405.

1944 Rojas, Vicente Tolentino. Historia de la Division Territorial, 1494-1943. Santiago, Republica Dominicana: Editorial El Diario.

1969 Sauer, Carl Ortwin. The Early Spanish Main. Berkeley: University of California Press.

1952 Spicer, Edward H. Human Problems in Technological Change. New York: Russell Sage Foundation.

CRITICAL ISSUES IN COMMUNITY DEVELOPMENT RESEARCH: A FIELD-THEORY PERSPECTIVE[*]

by

Kenneth P. Wilkinson[**]

Community development has been primarily an area of practice. Only rarely has it been treated as an object of scientific inquiry for theoretical purposes as such. Most of the research in community development has been "operations research," conceived as part of the process of community development itself. Many contributions to action goals have been made through such research and, as a spin-off, some knowledge has been accumulated regarding the nature of the process. This knowledge, however, has tended to be fragmented and prescriptive. The main line of research in community development has been concerned with the practical task of attaining development goals.

Several attempts to conceptualize community development in theoretical terms have appeared, but as Warren has noted (1963:310) these have tended to be "clinical models, designed not so much to facilitate analysis as to guide practice." Examples of this tendency may be found in the community development literature in rural sociology and related fields (as reviewed, for example, in Cole, 1965) in the recently developed body of systematic social work literature in community organization practice (see Kramer and Specht, 1969) and in the strategic documents of both old and new "radical" movements at the community level in this country and others. The aim of much of this literature has been to facilitate the accomplishment of immediate tasks.

The more reflective and detached task of seeing how development fits into general theories of social organization and change has proceeded in recent years, perhaps as part of the general resurgence of both practical and intellectual interest in the community, through treatments of such concepts as structural differentiation (see Young and Fujimoto,1965; Clark, 1968), structural freewheeling (Hillery, 1968) and systemic adaptation (Bebout and Bredemeier, 1963). Purposive attempts by actors to alter their relationships and environment, which have been the focus of much theorizing in studies of organizations and groups, have been strangely ignored in much of the serious theoretical literature on the community. Warren's (1965) treatment of purposive social change in the community and other conceptual treatments (by Green and Mayo, 1953; Kaufman, 1959; Reiss, 1959; Sutton and Kolaja, 1960) of the characteristics of community action, while essentially practice-oriented, point to important problems for social organization theory.

---

[*] Presented to the rural sociology section of the annual meeting of the Association of Southern Agricultural Workers in Jacksonville, Florida, February 3, 1971.

[**] Principal Sociologist, Cooperative State Research Service, U.S. Department of Agriculture, Washington, D.C.; on leave during 1970-71 from Mississippi State University.

The purpose of this paper is to outline a conception of community development from the perspective of social field theory, drawing upon and extending earlier papers (Wilkinson, 1970a: Wilkinson, 1969; Kaufman and Wilkinson, 1967; Kaufman, 1959) in which the community was defined as a social field. The notion of the community field will be reviewed briefly and extended to encompass a notion of community development. This will then be explicated through discussion of selected contemporary issues in community development practice. The aim in this discussion will be to identify fundamental theoretical issues underlying the practical concerns. Research needed to confront these issues will be indicated.

THE COMMUNITY FIELD

Field theory (Wilkinson, 1970a:311-314; Maxwell, 1890:532-533; Lewin, 1951; Fagan, 1964; Yinger, 1965) is concerned, in the abstract, with the emergent dynamics of unbounded wholes, which are termed fields. Fields have been identified and examined at many levels of analysis, including first the physical and biological and more recently the psychological, cultural and social. Fields are emergent in the sense that they differ from the sum of the characteristics of their components. They are dynamic in that they are constantly changing. "Unbounded" means literally without boundaries--fields shade into one another and must be distinguished according to their core properties rather than according to the characteristics of their perimeters. A field is holistic in the sense of having a configurational or systemic unity. How a field can be emergent, dynamic and unbounded and still have sufficient internal unity to constitute a single, holistic thing is one of the mysteries of reality with which field theory deals.[1]

Groups, organizations, communities and other forms of social organization may be treated as social fields. A social field (Wilkinson, 1970a:317) is "a process of interaction through time, with direction toward some more or less distinctive outcome and with constantly changing elements and strucutre." The main components are behavioral roles of actors as these are more or less tenuously organized through time relative to one another and relative to the collective interests being pursued. The emergent, dynamic and boundless qualities of a social field derive in large part from the objective contingencies of the behavioral events. One never knows exactly what will happen next as many variables and forces, each with "multiple possibilities" (Yinger, 1965), converge to interact at the moment of behavior. The holistic characteristics of a social field, while manifested in behavioral regularities, result on the other hand primarily from individual and collective processes of conceptualization.

---

[1] In contrast to both extreme phenomenology, which assumes that the universe is disintegrating, and teleology, which assumes that there is a basic, pervasive force toward order, field theory assumes that both order and disarray, both "system" and "turbulence" (Turney-High, 1968) are essential characteristics of reality.

Among the social fields in a given locality are some which are locality-oriented, meaning (Wilkinson, 1970b:56-57) that the principal actors and beneficiaries are local residents, the goals of action represent interests of local residents, and the action is public as opposed to private in that beneficiaries include persons in addition to the actors. In many instances the actions and structures which constitute one of these fields are oriented toward a single interest or category of interests. Such fields may be grouped for purposes of study along institutional interest lines.

The community field (Kaufman, 1959:10) is a locality-oriented social field through which actions expressing a broad range of local interests are coordinated. It emerges from the institutional-interest fields and acts upon them.[2] The essential, distinctive process of the community field is that of generalization across interest lines. It is through the community field that comprehensive community "improvement" efforts are conducted.

The communityfield is manifested in the acts of generalized leaders which contribute to the accomplishment of goals in a variety of community projects over time and in the structure and activities of groups and organizations which seek to coordinate and muster resources for these projects. It includes unorganized as well as organized activities and informal as well as formal associations. Government may or may not be involved, and if involved it may or may not play a central role. The community field is in a constant process of change as actors, associations and actions move into and out of contact with the generalization process.

---

[2] The community field is, of course, an abstraction from the other social fields, but these are also abstractions. Detailed criteria for identifying actions in the community field have geen given by Kaufman (1959:13; cf. Green and Mayo, 1953; Sutton and Kolaja, 1960).

COMMUNITY DEVELOPMENT

Development is a perplexing problem for social science, but one for which the assumptions of field theory are especially relevant. Social organization is seen from this perspective not as a given in either its present or its future condition but as a dynamic, inherently unstable phenomenon existing largely, as it were, on a thread of memory consensus connecting crudely related real moments. Order and unity are forever in jeopardy. There is no assurance of continuity and balance. There are inherent problems of organization for which there are no inherent solutions. Development must be regarded not as a natural unfolding of some predetermined or evolutionary sequence of forms but as a process set against powerful tendencies in nature. Unity, order, meaning and purpose--the directional features of social change--stem not so much from the nature of things as from the interests (i.e., wills, values, ideas, attitudes, sentiments, and concerns) of men.

Community change is a much broader process than community development and community development is only one factor in the emergence of the community field. Sometimes in the configuration of ecological, cultural, social, psychological and chance factors which figure in change in the local society there is a category of actions which reflect the intentions of actors to create or strengthen the relationships and patterns through which they seek collectively to express the range of their common interests and to solve their community problems. It is this category of purposive, structure-building activities which constitutes community development. This is only one of many factors and often its influence on the local society and on the community field is slight or none. Given the openness of the field-theory concept of causation, however, purposive action such as community development can, under certain conditions, have far-reaching consequences.

Community development, thus conceived, is always purposive. Unintentional actions may have as much or even more influence on the community field and certainly should not be ignored in a comprehensive study of community change. But a serious error in causal assessment can be made if intentional and unintentional actions are grouped together as dependent variables and "explained" in terms of the same set of independent variables. The causes of "purpose," which is at the heart of the concept of development, emanate from distinctive roots.

Community development is also always positive. This means that the intentions of the actors have to do with what is subjectively defined as improvement. In community development, as in any social context of development, consensus between at least two actors as to an operational definition of improvement is required. Consensus is an adequate criterion when treating development in strictly ideational terms. When dealing with development of a specific form, such as a community field, a more stringent criterion as to what is "positive" may be used. The purpose is then positive under conditions which may be objectively defined.

It does not follow that community development is always successful. In fact, it is not necessary for definitional purposes that it ever be successful. The same is true of development of any social form. It is precisely on this point that the scientific legitimacy of the concept turns. To require that development be "successful" in an ontological sense is to require more than can be delivered. Success is a mental construct based in part on an abstraction from reality. To say that community development has been successful in an absolute sense is to overestimate grossly man's actual control over reality and to ignore many of the forces in the causal field.[3] Trying is enough to qualify as community development. Nothing is ever finally "developed" nor are there degrees or stages of a fully "developed" state. The development is nothing more than the action undertaken with positive purpose. It is true and proper that both the science and the practice of community action are oriented toward understanding as many of the causal variables as possible. It is also true, however, that distinctive forces such as community development must be ferreted out for special investigation if sense is to be made of the patterns of change which are observed.

Community development is primarily structure-oriented. Kaufman (1959) has drawn a clear and useful distinction between what he calls development in the community and development of the community. The former, referred to in the literature as differentiation, modernization and community growth, treats the community only as a context within which special interest programs of change, usually of a highly technical nature and with extra-local direction, are conducted. Development of the community requires that attention be given to the integrative, generalizing structures in the local society.

Every act in a social process, whether in a community field or otherwise, has structural as well as task accomplishment consequences. Community development is purposive action which is oriented in a positive way toward the structure of the community field. Such action is probably less frequent empirically than purposive action which is oriented in a positve way toward task accomplishment. The consequences go both ways; but consequences aside, it is the orientation of the actors which is the distinctive quality.

---

[3] By the same token, of course, though admittedly in an oblique way, community development as described here never fails to have some influence in and on the community field.

The concept of structural orientation has been used effectively in recent treatments of leadership in small groups (Mills, 1967) and complex organizations (Katz and Kahn, 1966). The essential notion, which has also been employed by Mead, Piaget and others, is that individuals may be classified at a given time and compared with themselves over time in terms of the concept of structure embodied in their self-definition of their own roles and those of others in a group or organization. At one level are those who have only a vague awareness, if any, of structure and little or no interest in it. Their behaviors are relevant to structure but they have no awareness of this. At another level are those for whom structure is viewed as a given--an inherent order to be adapted to but not something to be modified or challenged. At another level are those who "subordinate structure" (Katz and Kahn, 1966) by viewing it as a minipulatable tool for expressing interests, something to be changed and modified as necessary to conform to the "meta-group" image (Mills, 1967) held by the actors. Leaders are those who operate at this latter level. They, in the present context, are the participants in community development. They orient their behavior in a positive way to the structure of the community field, acting in immediate situations to effect changes in structure in line with a desired image.

Community development is thus a symbolic process in precisely the sense that symbolic processes have been defined by students of Mead and Cooley (see, most recently, Lyman and Scott, 1970; Warriner, 1970; and Denzin, 1970). It involves behavior relevant to an existing social process which has meaning in a shared context of co-actors. It is constructed, in Blumer's sense of the word, and it is structurally situated.

Structurally oriented behavior is that in which an attempt is made to alter structure. It is positive if it attempts to "improve" the structure. In the case of the community field improvement means contributing to increased generalization potential in the relationships among actors. This might occur in many ways. An example would be helping to establish and maintain a comprehensive organization to sponsor and coordinate community action projects. Another might be such a simple act as introducing a leader in one interest field to a leader in another. Structure of the field is altered positively by any act which increases generalization potential in the field in any way, to any degree. If such is attempted purposively it is community development.

It has been noted (Wilkinson, 1970b) that few acts have an exclusively structural orientation and, indeed, that structural consequences usually must be inferred in behavioral analysis from observations of task-related behavior. Exclusiveness, however, is not necessary for community development, and actual consequences are less relevant than are orientations. In the usual case, the critical issue in operationally defining community development is whether an actor in a community action project who is primarily concerned with getting a job done trys to do so in such a way as to improve the structure as described above. If so, what he is doing is community development.

7

COMMUNITY DEVELOPMENT ISSUES

Recent policy debates and discussions of such topics as "balanced growth" (see National Goals Research Staff, 1970) and "environmental quality" (see Perloff, 1969) have revived a number of old issues in community development and perhaps have articulated a few new ones. Groups in several parts of the country at this time are debating issues in "community and human resources development" as part of an attempt to generate new research in "rural development." Questions noted in some of these debates include the following: Should we try to save all the little towns or only those with growth potential? How can "growth" be the criterion, when it is cancerous growth of the cities that we are up against? How can we get away from the fruitless harangue over rural-urban distinctions and get on with the business of area development? In community development should we stress "process" or technical skill? What good is it to work out a plan for sub-optimization in various sectors of a local economy if the people won't buy it? Who should be the planners, the elite or the masses? How is a multi-county area like a community? What should be the role of volunteer groups? How can we make community development really relevant to the fundamental problems of society? There are many other questions. The fact that they are frequently being raised is part of a significant social trend.

Many of the practical questions may be summarized in terms of four general types of issues. These are issues of value, capability, responsibility and commitment. The value issue has to do with the kind of community desired, capability with the range of "the possible," responsibility with the locus of initiative, and commitment with the psychological bases of participation and leadership.

Genuine value issues cannot be resolved through research, although they can be clarified and they should be taken into account in behavior studies. Value positions on issues about the quality of life at both the task and the social relational levels are rooted in culture, personality and unique circumstances. All that a relativistic, non-teleological science can do is to help resolve questions of the effectiveness and the efficiency of alternative means for reaching valued goals. This holds with regard both to material goals and to the quality of relationships among people. A problem for basic research is to evaluate the effectiveness and efficiency of generalization relative to other means of reaching goals in the local society at both the material (task) and the social relationship levels. What is called for is a test of whether the community field is more or less useful than other means for pursuing the two kinds of values (cf. Warren, 1970).

A major research problem regarding the issue of capability is to determine the effect of purposive action, here called community development, upon the level of generality actually achieved in the community field. It is perhaps characteristic of Western man that he tends to overestimate his control over himself and the rest of the universe in both his anticipation of the future and in his after-the-fact accounting for events. The relationship between purposive action and actual outcomes can, however, be measured with some accuracy through carefully designed research. It would seem to be especially important to consider in research on community behavior the level of the actor's awareness of the dominant forces affecting community structure.

The question of whether responsibility for community development should lie in the community or elsewhere is partly a question of values, but it has an important dimension which is directly subject to research. That is the question of the structural consequences of community development efforts initiated from outside the community. Within the narrow definition of community development presented above these efforts are probably rare. More often community structure is ignored by external agencies (for a case study, see Wilkinson, 1969). But where local initiative is lacking and community development is desired, intervention is sometimes attempted. Very little is known about the consequences.

The issue of commitment is central to the matter of community development and is clearly subject to research. The various types and levels of commitment which result in community development need to be identified and their causes and consequences assessed.

CONCLUSION

The discussion of research issues has only been suggestive as has the presentation of the field-theory concept of community development. The major point being made is that attention in research needs to be given to purposive attempts by actors in the community field to increase the generalization potentials of their interactional relationships. This is an area of research about which little systematic knowledge has been generated despite much study of seemingly related topics. But it is one area which, from the perspective of field-theory, should be expected to yield insights into important forces in social change. Part of the importance of these forces is that they are things about which something presumably can be done.

REFERENCES

Bebout, John E., and Harry C. Bredemeier
1969 "American cities as social systems." Journal of the American Institute of Planners 29 (May):67-76.

Clark, Terry (ed.)
1968 Community Structure and Decision-Making: Comparative Analyses San Francisco: Chandler.

Cole, Lucy W.
1965 The Community Development Movement in Village and Metropolis Mississippi State University: Social Science Research Center Report 10.

Denzin, Norman K.
1970 The Research Act: A Theoretical Introduction to Sociological Methods. Chicago: Aldine.

Fagan, Edward R.
1964 Field: A Process for Teaching literature. University Park: Pennsylvania State University Press.

Green, James W., and Selz C. Mayo
1953 "A framework for research in the actions of community groups." Social Forces 31 (May): 320-327.

Hillery, George A. Jr.
1968 Communal Organizations: A Study of Local Societies. Chicago: University of Chicago Press.

Katz, Daniel, and Robert L. Kahn
1966 The Social Psychology of Organizations. New York: Wiley

Kaufman, Harold F.
1959 "Toward an interactional conception of community." Social Forces 38 (October): 8-17.

Kaufman, Harold F., and Kenneth P. Wilkinson
1967 Community Structure and Leadership: An Interactional Perspective in the Study of Community. Mississippi State University: Social Science Research Center Bulletin 13.

Kramer, Ralph M., and Harry Specht (eds.)
1969 Readings in Community Organization Practice. Englewood Cliffs, N.J.: Prentice-Hall.

Lewin, Kurt
1951 Field Theory in Social Science: Selected Theoretical Papers. Edited by Darwin Cartwright. New York: Harper and Row.

Lyman, Stanford M., and Marvin B. Scott
1970 A Sociology of the Absurd. New York: Appleton-Century-Crofts.

Maxwell, James Clerk
1890 The Scientific Papers of James Clerk Maxwell. Vol. I, Edited by W. D. Niven, Cambridge: Cambridge University Press.

Mills, Theodore M.
1967 The sociology of Small Groups. Englewood Cliffs, N.J.: Prentice-Hall.

National Goals Research Staff
1970 Toward Balanced Growth: Quantity with Quality. Washington, D.C.: Government Printing Office.

Perloff, Harvey S. (ed)
1969 The Quality of the Urban Environment: Essays on "New Resources" in an Urban Age. Washington, D.C.: Resources for the Future.

Reiss, Albert J., Jr.
1959 "The sociological study of communities." Rural Sociology 24 (June): 118-130.

Sutton, Willis A., and Jiri Kolaja
1960 "The concept of community." Rural Sociology 25 (June): 197-198).

Turney-High, Harry Holbert
1968 Man and System: Foundations for the Study of Human Relations. New York: Appleton-Century-Crofts.

Warren, Roland
1963 The Community in America. Chicago: Rand McNally.

1965 Types of Purposive Change at the Community Level. Waltham, Mass.: Brandeis University Papers in Social Welfare, No. 11.

1970 "Toward a non-utopian normative model of the community." American Sociological Review 35 (April): 219-228.

Warriner, C.K.
1970 The Emergence of Society. Homewood, Ill.: Dorsey Press

Wilkinson, Kenneth P.
1969 "Special agency program accomplishment and community action styles: the case of watershed development." Rural Sociology 34 (March): 29-42.

1970a "The community as a social field." Social Forces 48 (March): 311-322.

1970b "Phases and roles in community action." Rural Sociology 35 (March): 54-68.

Yinger, J. Milton
1965 Toward a Field Theory of Behavior: Personality and Social Structure. New York: McGraw-Hill.

Young, Frank W., and Isao Fugimoto
1965 "Social differentiation in Latin American communities." Economic Development and Cultural Change 13 (April): 344-352

COMMUNITY RECONNAISSANCE METHOD: A SYNTHESIS OF FUNCTIONS

by

Harold L. Nix and Norma R. Seerley

UNIVERSITY OF GEORGIA

ABSTRACT

This paper is a description of a sociology methods course (Sociology 559-759) in which an attempt is made to synthesize the three basic functions of the Land Grant University--education, research, and service. The course is designed to (a) teach prospective change agents in the area of community action research; (b) perform research in a host community; and (c) relate the research findings to service programs of the university and other agencies.

In addition to the course description, a case study of a class performance, its findings, and the follow-up program are described.

INTRODUCTION

There are two trends in communities and universities which have lead to the development of the methods course described in this paper. First, there has been a rapid increase in the number of nonbehavioral or technical studies and plans for communities. Associated with this increase in nonbehavioral study-planning programs has been a growing criticism of the lack of implementation of these costly studies. Fortunately, there also has been an increasing realization that the physical, economic, governmental, and other technical changes in communities usually are preceded by changes in the social structure of the community. That is, the present conditions in a community are, in large measure, the results of the prevailing attitudes, values, aspirations, beliefs, behavior, and relationships of its citizens. Hence, the community is not likely to change very effectively in a planned way until these elements of the social structure are changed. In order to change the social structure of a community, it is only logical that the relevant parts of the structure be assessed first. The "Community Reconnaissance Method" is one way such a social analysis may be made.

The second trend has been the increasing division of labor. Associated with the division of labor has been an increasing tendency to specialize within scientific disciplines and in the functions of the universities and colleges. This specialization has produced many reactions in our society: scientists have become increasingly concerned with interdisciplinary research and systems approaches; citizens have accused the universities of being "ivory towers" and students have demanded more relevancy in their courses. Some of our own reactions have been to increasingly realize that the university is a social system; that its three basic functions of education, research, and service are interrelated; and that a course designed to meet all three functions might help to take us out of the "ivory tower" to meet the students' demand for relevancy, provide a bridge between theory and action, and provide community change agents with the needed assessment of the social structure of the communities which they are helping to develop. With these factors in mind, a course was developed in the Department of Sociology and Anthropology at the University entitled "Community Reconnaissance Method" (1).

PURPOSES OF THIS PAPER

The purpose of this paper is to describe the "Community Reconnaissance Method" course which is designed to: (a) teach prospective change agents how to make a "community social analysis", (b) conduct research in a host community using the "Community Reconnaissance Method", and (c) relate the research findings to service programs of the university and other service agencies. In addition, a brief case study of one class performance is described.

DEFINITION AND PURPOSES OF RECONNAISSANCE METHOD

The "Community Reconnaissance Method" is a quick efficient technique for determining relevant aspects of the social structure and processes of a community using leader respondents as informants (2).

The basic purpose of the Community Reconnaissance is to help provide for better understanding, direction, and organization of the host community through its many helping agencies and organizations. More specifically, the survey is aimed at helping local citizens, leaders, and groups to:

1. Identify the felt needs and problems of the community.
2. Rank in priority the need and problem areas to be dealt with.
3. Organize or mobilize to deal with chosen needs and problems.
4. Study the identified needs and determine specific goals.

5. Develop a plan of action to accomplish locally determined goals.
6. Find resources to accomplish goals.
7. Act to accomplish goals.
8. Evaluate accomplishments (3).

DIMENSIONS STUDIED

What are the relevant parts of the social structure which should be studied as a basis for comprehensive community development? Although the content or dimensions studied by our Community Reconnaissance Method classes have varied some, the dimensions we have most consistently included are the following:

1. Attitudes and values.
2. Aspirations (felt needs).
3. Evaluations of community services and facilities.
4. Reaction to public issues.
5. Social processes (conflict, cooperation, decision making, exchange, coordination).
6. Organizational structure.
7. Leadership (4).

METHOD (5)

The method taught and used in our Community Reconnaissance Method classes is a modification of the Reconnaissance Method developed by Irwin Sanders at the University of Kentucky (6). It includes several steps. The first step in the method is to locate a host community. In order for the community study to be successful in terms of meeting the purposes stated above, it is felt that there should prevail in the community a felt need for community improvement. In addition, a group or organization of local citizens should agree to support the study in the following ways:

1. Provide a representative group of local citizens to participate in an orientation or explanation session.
2. Provide a broadly representative sponsoring organization(s), or a community steering committee made up of representatives from different organizations and groups.
3. Support the research class as they make the study. This support should include:
    (a) assisting in the legitimization process,
    (b) providing news releases on the proposed study giving purpose, sponsorship, and time,

   (c) contacting each person to be interviewed, and
   (d) in some cases, scheduling the interviews in some central place.
4. Pay for or share the cost of publication of the study.
5. Permit public release of the findings through various media such as newspapers, public meetings, and publication.
6. Assure the use of the findings to stimulate study groups, program planning, and other community developmental efforts.

The second step in the reconnaissance method involves library research. Typically, the classes have been divided into four teams to conduct four types of library research: (a) demographic analysis, (b) content analysis of newspapers, (c) summary of community history, and (d) study of previous surveys.

The third step in the method is the construction of an interview schedule. After studying interview schedule construction, the class constructs a preliminary schedule. This schedule is discussed with representatives of the sponsoring group. It is usually modified and supplemented by the local representatives since there are many questions and issues within a particular community which outsiders cannot anticipate.

The fourth step in the reconnaissance method involves pretesting and modification of the schedule.

The fifth step consists of field interviews with a sample of community leaders. One technique of selection of respondents is to start interviews with known key influentials such as the mayor, a local editor or civic-minded business leader. As part of the interview, each interviewee is asked to name approximately six or eight of the most influential leaders in the community. One then snow-balls or tallies the named leaders and interviews those named most often until 50 to 100 have been interviewed.

The sampling technique that has been used most often is to select a positional panel of 12-24 people consisting of one or two positional leaders from each specialized area such as government, religion, education, mass communication, business, industry, planning, health, welfare, labor, civic, and Negro. When interviewed, these positional leaders are asked to name general and specialized leaders in the community. Those most often named are then interviewed until 50 to 100 have been interviewed.

A third technique used involves having members of a broadly representative sponsoring organization fill in a nomination questionnaire in which they are asked to name about four general leaders plus two leaders for each of about twelve specialized types of leaders. Those nominated most often are interviewed. The last two techniques tend to give a broader base of leadership (7).

Throughout the quarter, especially during the interviewing period, the instructor and students take notes on casual observations in an attempt to develop insights into interaction patterns.

PREPARATION OF REPORT AND REPORT-BACK

After the interviewing is completed, the instructor, students, and part-time help begin the processes of tabulation, analysis and report writing. In studies where random sample of heads of households or random voters are interviewed to compare with community leader samples, coding and computer programing processes are involved. To date, the quarter has always ended before the study has been completely written and published. However, interested students usually follow the progress of the study and the follow-up.

The Community always receives a published report of the study which includes the method used, findings, and implications for development. These publications are included in the "Community Social Analysis Series", a joint monograph series published by the Institute of Community and Area Development and the Department of Sociology and Anthropology at the University of Georgia (8). The Seventh Volume of this series is now being written. In addition to the published report, a community public meeting is held to hear the results and newspaper releases are made. In one instance, a series of twelve articles appeared in the daily newspaper describing various sections of the finding.

FOLLOW-UP CASE: OGLETHORPE COUNTY

The fifth of the series of Community Reconnaissance studies made at the University of Georgia was of rural Oglethorpe County whose declining population was approximately 7,500 at the time of the study in 1966. The Oglethorpe County Civic Club sponsored a Community Reconnaissance Study in 1966. After the study, public report, and publication of the Community Social Analysis of Oglethorpe County (9), the Oglethorpe Civic Club with the co-sponsorship of the Oglethorpe County Jaycees and the local post of the American Legion formed the "Oglethorpe Committee for Progress." The parent organizations charged the committee with working with the University of Georgia in selecting approximately six of the most important need areas as determined by the Community Reconnaissance Study and other sources for further study in a series of Community Problems Seminars (10).

Their selections were:

1. Planning for Small Towns and Counties.
2. Recreation.
3. Environmental Design.
4. Governmental Improvements.
5. Economic Development.
6. Educational Needs.

To these six areas of instruction were added two others: "Introduction to Community Development," and "Summary, Recommendations and Organization for Action."

A Title 1 of Higher Education grant was obtained to support the eight two and one-half hour seminars on the eight topics. The instructor of the Community Reconnaissance Class with the support of the Institute of Community and Area Development and the Department of Sociology and Anthropology secured the services of a specialist in each of the seminar subjects. These specialists were charged with:

1. Studying the assigned need area in the community.
2. Preparing a paper and discussing in a meeting open to all the conditions found and presenting alternatives for improvement.
3. Leading a discussion with the attending citizens.

After each discussion, the general moderator, who moderated at each of the eight sessions, broke the audience into groups of six in which the Phillips 6 x 6 method was executed by giving each group leader a card on which to record and rank each of the six member's suggestion as to "how best to improve the community in the area discussed that evening--recreation, education, etc. These cards were collected, the responses tabulated after each meeting, and the tallies passed on to the "Committee for Progress." Before the last meeting, the Committee met to view the weighted rank order of suggested improvements in each of the six need areas discussed and to select across all need areas a limited number of goals to recommend. The criteria used in the selection of goals were:

1. Felt need or expressed order of importance.
2. Logical sequence.
3. Cost.
4. Feasibility.
5. Solidifying influence.

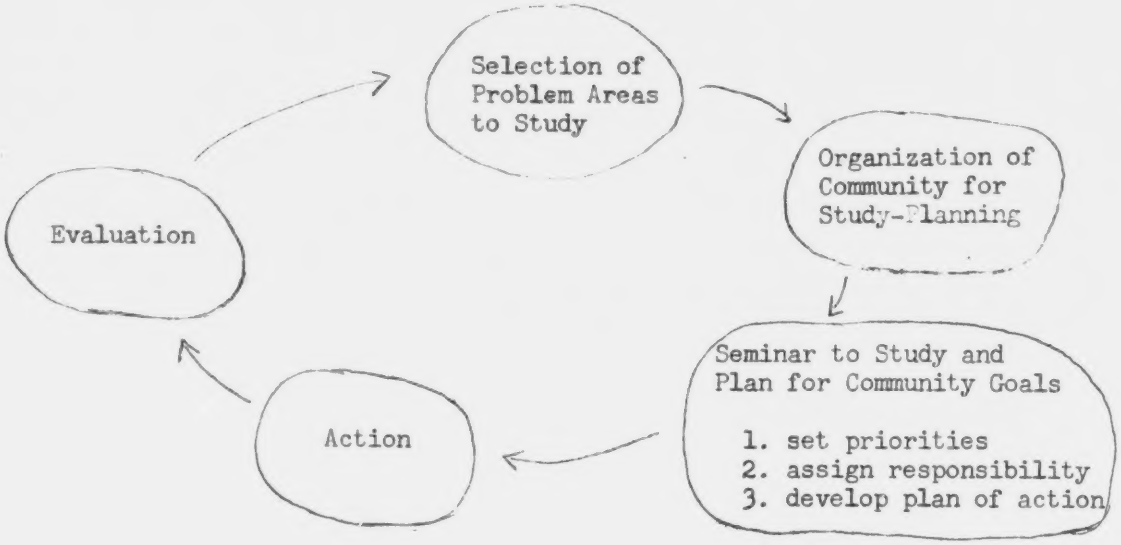
The Committee recommended in rank order of importance five short-range and five long-range goals. These were placed on a ballot form which provided appropriate columns for voting for or against and the ranking of importance. In addition, space was provided for write-in goals. On balloting, all ten recommendations were accepted with only slight changes in priority of the short-range goals. None of the write-in goals carried.

Eight months after the end of the seminars a county-wide meeting was called to evaluate the progress made on achieving the ten goals set. At the time, two goals had been achieved, substantial progress had been made toward six goals, and little or no progress had been made in achieving two of the goals. Now over two years later, a quick check on progress toward the goals indicates that six goals have been achieved; fair to good progress has been made in achieving three goals; and no progress has been achieved toward one goal.

While evaluating the progress toward goals in a county meeting those present voted to make plans for another one or two seminar series on "Improvements in County Government" and "Improvements in Public Education." The study and discussion of these two topics were contingent upon getting studies made of their County government and public school system by specialists. Since that time a study of Oglethorpe County Government has been made and published. Efforts are now underway to organize the second series of seminars.

It has been our purpose to set in motion the processes of community study-planning-action-evaluation in Oglethorpe County. These processes which hopefully now are institutionalized, are illustrated in Figure 1.

Figure 1: Institutionalization of the Study-Planning-Action-Evaluation Processes


Selection of Problem Areas to Study
Organization of Community for Study-Planning
Seminar to Study and Plan for Community Goals
1. set priorities
2. assign responsibility
3. develop plan of action
Action
Evaluation

SUMMARY

This paper has described the Community Reconnaissance Method Course being taught at the University of Georgia. The course is designed to integrate the three basic functions of the University by *teaching* the student the processes involved in studying communities, involving the student in an actual *research* project, and providing the *services* of the University to the community as illustrated in the Oglethorpe County case. Thus, students and instructor are taken out of their accused "ivory tower" situations. In addition, an opportunity is available for bridging the gap between action and theory in the research process. Finally, the results of the students' labors are available for use by communities and change agents for community development; consequently, some students have found a course which they feel is relevant to some of the problems of society.

FOOTNOTES

[1] The "Community Social Analysis Series" using the "Community Reconnaissance Method" has been supported by the following units of the University of Georgia: Institute of Community and Area Development, Department of Sociology and Anthropology, Georgia Community Continuing Education Service, and General Research. In addition, support was given by the Georgia Department of Public Health.

[2] The "Community Reconnaissance Method" as used at the University of Georgia is a modification of the method described by Irwin T. Sanders. See: Irwin T. Sanders, *Preparing a Community Profile: The Methology of a Social Reconnaissance* Kentucky Community Series No. 7 (Bureau of Community Service, University of Kentucky, Lexington, 1950); and Irwin T. Sanders, "The Community Profile," *American Sociological Review*, XXV (February, 1960), 75-83.

[3] Harold L. Nix, *Community Social Analysis of Athens-Clarke County*. Community Social Analysis Series No. 6 (Institute of Community and Area Development and Department of Sociology and Anthropology, University of Georgia, Athens, August, 1969), 2.

[4] *Ibid*.

[5] *Ibid*. pp. 3-5

[6] Sanders, *op*. *cit*.

[7] Harold L. Nix, Identification of *Leaders and Their Involvement in the Planning Process*, U.S. Public Health Service Publication No. 1998 (Washington: Government Printing Office, 1970), 13-22.

[8] The "Community Social Analysis Series" includes studies of the following communities: Savannah-Chatham County, Macon-Bibb County, Augusta-Richmond County, El Pinar, Spain, Oglethorpe County, and Athens-Clarke County. The seventh volume of the series is in the writing stage on DeKalb County.

[9] Harold L. Nix, Donald Shoemaker, and Ram Singh, *Community Social Analysis of Oglethorpe County* Community Social Analysis No. 5 (Institute of Community and Area Development and Department of Sociology and Anthropology, University of Georgia, Athens, 1967).

FOOTNOTES

[10] The lectures, discussions, and goals set were published for the local community. See: C. Ray Wingrove and Harold L. Nix, *Leadership Seminars on Community Problems in Oglethorpe County* (Northeast Georgia Area Planning and Development Commission, Athens, Georgia, 1968).

LEADER'S AND NON-LEADER'S ATTITUDES AND OPINIONS TOWARD THE FOREST AND FOREST FIRES AND THEIR POSSIBLE EFFECT UPON FIRE PREVENTION MESSAGES

By Ben E. Dickerson[1]

The study was conducted in an attempt to shed light on the successful communication of fire prevention messages.. It was hypothesized that there is a relationship between the attitudes and opinions of leaders playing communicator roles and the success of social action programs. Therefore, it was expected that a forest fire prevention action program would not be successful if the local leaders playing communicator roles had a negative or neutral feeling about fire prevention. To test this particular hypothesis, it was assumed that a successful fire prevention program had not been achieved in the study community since its fire rate was much higher than that of the county within which it was located.[2]

A rural neighborhood in southwest Mississippi was selected as the study site. Approximately 240 families resided in the area. Persons identified by both household heads and formal community leaders were considered to be local opinion leaders.

Opinion Regarding Whether or Not Forest Fires Were a Serious Problem

As a means of assessing opinions that might affect a forest fire prevention action program, respondents were queried as to whether they considered forest fires a serious problem in the local community. Where the respondents were divided into leadership and non-leadership categories, it was discovered that a relatively large number of the former considered forest fires to be a serious problem. Table I reveals that three-fourths of the non-leaders indicated there was no reason to be alarmed about woods burning, whereas slightly more than one-half of the leaders expressed the same feeling.

TABLE I: Leader's and Non-Leader's Opinion Toward the Seriousness of the Forest Fire problem in the Local Community

Opinion Statement	Leaders (N=29) (Per cent)	Non-Leaders (N=201) (Per cent)
A very serious matter	17.2	11.4
Moderately serious	24.1	14.4
Not very serious	27.6	50.2
Not very serious at all	31.1	24.0
TOTALS	100.0	100.0

Two facts stand out from these findings. First, leaders are more apt to be conscious of fire as a problem. Second, the majority of persons in the area have little concern over forest fires.

Opinion as to Whether or Not the Number of Fires in the Local Community Could be Reduced

Respondents were asked whether they felt that the number of forest fires in the area could be reduced. The most frequent response was that fires could be reduced to some extent (Table 2).

TABLE 2: Leader's and Non-Leader's Opinions Toward Reducing the Number of Fires in the Local Community

Opinion Statement	Leaders (N=29) (Per cent)	Non-Leaders (N=201) (Per cent)
Quite a bit	34.4	20.4
Somewhat	50.7	53.3
Not at all	14.9	24.3
No answer	0.0	2.0
TOTALS	100.0	100.0

More than one-third of the leaders believed woods burning could be reduced considerably, while only one-fifth of the non-leaders expressed the same feeling. Nearly one-fourth of the non-leaders felt that fires could not be reduced, but only 15 per cent of the leaders expressed such a pessimistic view. Again, it appears that leaders have the more enlightened view. This finding provides some basis for optimism with regard to programs channelled through opinion leaders.

Attitudinal Responses to the Forests and Forest Fires

To provide an indication of the leaders' and non-leaders' attitudinal responses to the forest and forest fires, a six-item Guttman scale, appropriate for the respondents was developed. This scale was derived from the original set of nine items of the questionnaire on the basis of a coefficient of reproducibility of .905. The agree-disagree response items which were scaled included the following:

(1) You do not have to worry about the woods because nature will always

take care of the trees.

(2) The future of the area economy lies largely in the development of forests.

(3) Firing the woods is an established custom that might not be regulated by law.

(4) Firing the woods does not really get rid of bugs and snakes and other pests.

(5) Most of the timber land around here looks all grown up because they do not burn it often enough.

(6) Grazing is a lot better when the land is burnt off every year.

The distribution of the scale types for the total population is presented in Table 3. By means of this scale, it was possible to analyze the subjects' responses to several items at the same time and rank them according to their scale scores. Those with the lowest scale score were considered most favorable toward the woods. An individual with the highest score, for example, felt that firing the woods should not be regulated by law; felt that the woods did not need any special care; felt that the future of the area economy did not lie in the development of forest; felt that firing the woods got rid of bugs, snakes, and other pests; believed the local timber land looked all grown up because it was not burned enough; and felt that grazing was better when the land was burnt off every year.

Local opinion leaders in general had higher scores on the Guttman scale. Their means scale score was 5.17, which meant that their attitudes toward the woods and forest fire prevention were relatively unfavorable. More than one-third (37.9 per cent) of the leaders were ranked in the highest scale type, VII. Of those remaining, 62 per cent of the leaders expressed unfavorable attitudes toward the woods, and about 21 per cent indicated a neutral feeling, answering one-half of the items in a favorable manner and the other half unfavorably. Only 17 per cent of the leaders were considered to have favorable attitudes toward the forests.

TABLE 3: Distribution of Forestry Orientation Scale Types for the Total Population of the Study Community

SCALE TYPES	SCALE ITEMS						RESPONDENTS	
	3	1	2	4	5	6	Number	Per Cent
I	X	X	X	X	X	X	15	6.8
II		X	X	X	X	X	16	7.3
III			X	X	X	X	11	5.0
IV				X	X	X	61	27.6
V					X	X	29	13.1
VI						X	31	14.0
VII							58	26.2
TOTALS							201	100.0

By comparison, there were approximately 10 per cent fewer non-leaders than leaders included in the unfavorable scale types (Table 4). The mean score for non-leaders was only 0.35 scale points below that of the leaders' scale score. The reason for the small difference between the two means can be explained by scale type IV. More non-leaders than leaders were categorized in this middle scale type, thus causing the group means to be quite similar. Percentages were found to be near the same for both groups in the favorable scale types.

TABLE 4: The proportion of Leaders and Non-Leaders Included in Each Guttman Scale Type.

Scale Type	Leaders (N=29) (Per cent)	Non-Leaders (N=201) (Per cent)
I	6.9	6.8
II	6.9	7.8
III	3.5	4.7
IV	20.7	28.6
V	10.3	13.5
VI	13.8	14.1
VII	37.9	24.5
TOTALS	100.0	100.0

A difference of means test was used to compare the leaders and non-leaders in terms of attitudes toward the forest environment. A one-tailed test was selected along with a significant level of .05. It was found that P=0.40, the probability of which would be greater than .05. Therefore, it was concluded that there was no significant difference between leaders and non-leaders in their attitudes about the woods and woods burning.

The foregoing conclusions suggest that the hypothesis--that social change in local areas depends in large part on the "selling" of local opinion leaders on the idea--is a viable area of research. Although the data under investigation did not completely support this hypothesis, it is believed that subsequent study will be fruitful.

Footnotes

[1] Assistant Professor, Department of Sociology and Associate Faculty Member, School of Forestry, Stephen F. Austin State University. The investigation was supported cooperatively by the Southern Forest Experiment Station, the Department of Rural Sociology of Louisiana State University and the Louisiana Agricultural Experiment Station.

[2] Fire occurrence rates for the study area have averaged 18 to 20 per cent higher from the period of 1959-60 through 1966-67 than the rates for the entire county in which it is located.

[3] The symbol X designates aggrements with the respective items. Respondents who failed to indicate their aggrements with the selected items were eliminated in this scalogram.

THE COMPLEXITIES OF AUTOMATION AS A FACTOR IN SOCIAL CHANGE

by

Albert H. Roemer and Prakash C. Sharma

University of South Alabama

ABSTRACT

As progress continues in techniques and processes of production changes of both small and large degree result in new social patterns. The little remarked but overall change in manufacturing methods, automation, will cause some rearrangements of the occupational types involved. Automation, meaning self-operation and control of machinery has been made effective through various processes and these controlled by Cybernetics. The bulk of employees has been of the semi-skilled grade; that is, they have some knowledge of machinery and its operation. In the usual manufacturing complex the unskilled are used to bringing supplies to the semi-skilled workers who operate most machines. They also remove the processed articles and prepare them for their destinations. The highly skilled workers set and adjust the machines, make special parts, and revise mechanical devices to meet new specifications. With automation the machines serve themselves by feeding in material, forming it or processing it, and discharging the processed article. These functions have been the work of the semi-skilled machine operators and now, with automation, he is displaced. The unskilled still bring the articles or material to be worked to the machine and take it away after the process is completed. The skilled set up and adjust the machine but little is left for the semi-skilled.

This then is the dilemma we face: what to do with the intelligent and dependable semi-skilled worker? The solution offered is to upgrade him by intensive training or to look for an alternative. Because these men are a bit better than average they can use their

intelligence and ingenuity to find places in the fast growing service industries. These places require more than the services of the unskilled and are quite suitable for the semi-skilled.

Agriculture can profit by some revision of methods and become even more productive with the application of Cybernetics. This complex or process is the substance of the paper.

Social scientists view the onset of more complex labor saving machines as a cause of unemployment among the least skilled of the working force. The phase of automation most technical in aspect and which parameters are difficult for the layman to comprehend is Cybernetics. The machine in its simplest form has freed men from dull and tiresome labor. As it becomes more sophisticated in its first stage it is designated "automatic" as it requires little more than an attendant. The highest level of machine design which makes its own adjustments and corrections while feeding itself the raw material to convert into finished products is controlled by the Cybernetic device or complex to be truly automated-self controlled.

The humanitarian is quick to point out that the so mechanically controlled machine can and will displace one or more human workers. Fact is that is the intention; to speed up, make more accurate parts, and increase profits of the manufacturer. If this were the only effect, one might seriosly content that it is disastrous. As is well known to those familiar with the literature of the introduction of machines in any industry, vigorous objections are soon sounded. These objections seem to be valid only in the immediate time of introduction. The workers thrown out of work are actually liberated from monotonous drudgery and can turn their efforts to other occupations. The least skilled can go into building and grounds maintenance, common labor (which, incidentally, is far from the simple work imagined by professors) or one of the occupations marked by a similar level of cerebration and muscular prowess. Those machinists of higher skill would tend and adjust machines, plan, and route production, and some could benefit by education to become engineers of the kind which designs machines and products. In the case of the weavers in England, of printers everywhere and general manufacturing, wages would increase so that the market for the goods would expand and general prosperity would enlarge allowing for competition in distant markets.

As more and better machinery is introduced to modern production, products become better because the complex machine holds its dimensions to closer tolerances and efficiency rises allowing a lower product price. Thus, more, better, and cheaper goods are produced. We can point to the ubiquitous automobile as a case in point. Our Detroit product, while often criticized for its shortcomings, is a marvel of manufacturing efficiency. To build even parts of it by ordinary machine shop practices such as miller, shaper, planer, and lathe, would set the cost up past that of the fanciest custom creation of the European craftsmen. The engines are constructed to limits of dimensions measured in tenths of one thousandth of an inch and these parts are built by purely Cybernetically controlled automated machines. The engine block, the heaviest single part, is worked on in seven different directions at the same time and leaves the machine it entered as rough casting as a magnificently finished product identical with thousands of others.

The full automation process in any complex operation is made by such a complexity, soon to be described, that its cost would only be amortized by a production run of many pieces. Most of the manufactured articles will be made on "automatic" machines; that is those which are controlled in part by a human operator even if he is running several machines at once. Some "automatic" machines require constant attention while others give a signal recognized by the machinists if they go out of adjustment. Experienced machinists can distinguish each sound in the shop to know instantly if one machine is not operating as it should. Your writer has stood in a big shop making bolts of all sizes, from 1/16 of an inch to one and a half inch in diameter unable to hear a human voice clearly over the uproar. The shop boss could assay the function of the many machines just by the tones, which to him, were in harmony. Thus automation will take over many of the long run production functions while "automatics" will produce the shorter run objects.

It is a paradox that the highest precision in the automated machines is accompanied by lower prices and greatest efficiency. One would ordinarily suppose the cheapest product would be poorly made, of irregular dimensions, and of low grade material. In the automated product the reverse is true as to feed these expensive devices with rough or irregular raw material would cause stoppages. As each separate function is closely measured during the manufacturing process the objects' dimensions are held to closer tolerances than would be necessary in a less complex device. Cheap stock, of irregular and poor material would fail to finish to the measurements demanded by the Cybernetically controlled machine. Thus the public is served by both better and cheaper products. The Automobile industry is operated in the main by unskilled laborers who can and do produce those marvels of delight so desired by the population. A visitor to the Detroit factories is amazed at the speed of production and the way the many complicated parts fit so quickly together.

What follows is a detailed description of the Cyberneric process in terms somewhat simplified to be comprehensible to the non-expert.

In the foreword to the work Thinking by Machine[1] Isaac Asimov explains:

> Is it possible that just as a machine can take over the routine functions of human muscle another can take over the routine uses of the human mind? Cybernics answers, yes!

Theorists claim that the mind, relieved from routine tasks, can explore the frontiers of knowledge and probe out solutions to problems of great importance. We should take note that a certain amount of routine is, in fact, salutory in any occupation at any level. The mental facilities can't maintain a high degree of efficiency steadily especially if in new fields of inquiry and using unfamiliar concepts. This is easily illustrated in the relief of tension by persons in all occupations by simple routine tasks to lower the anxiety resulting from high level mental effort. Many a big business executive whiles away a few minutes cutting open his mail, looking over daily reports, social gossip and frequent "inspections" of minor significance or other trifles not directly related to the work at hand. If one stays at attention the mind will wander to lose focus so that more would be lost in that manner than in so-called "needless" movements. Machinery doesn't tire in the same sense as human brains and muscles.

Each modern scientific specialist thinks his particular field is his exclusively, learning more and more about a continually narrowing subject. Other subjects and items are within the scope of colleagues in other departments of knowledge or in the range of his neighbor down the hall. Cybernetics, Wiener[2]. As most problems aren't confined to a narrow field, this narrow view prevents inter-specialty unions or even a fair level of cooperation. The concept of CYBERNETICS is the result of fusion between biological and mathematical functions. Norbert Wiener (a mental prodigy who was awarded a Doctor of Philosophy at Harvard University when he was only eighteen years old) is the recognized chief of the CYBERNIC concept, whose choice it was to name it after the Greek work for Steersman (Wheelsman), has keenly observed, "No one since Leibniz has had an encyclopedic grasp of the range of science."[3]

We may regard a machine as a mechanism which operates by mechanical means without the participation of human volition. The machine is automatic which supplies its own controlling energy such as a screw machine or a clock. Automation then is not only automatic but also controls its own parts to meet variations in a present range by the Feedback which senses potential deviations of product and signals the needed corrections.

It was applications of old and new techniques that were successfully used in the last Great War to point FLAK cannon against aircraft. Problems included speed of the craft, direction of its flight, sighting position, and most importantly to Wiener and his colleagues, to decide which way and how much the flight direction might change. By psychological study of men under stress such as the pilot would be, cancellation of the turning potential of the machine, considering also its position in flight and rate of turn and pilot's reaction, a reasonably probable attack design was formulated. The radar kept on target "feeding back" the new positions while the rapid machine computations with this feedback information together aided accurate shot placement.[4]

In order to bring such success Norbert Wiener remarked that a single area of science is not enough to break through barriers to research. He and his colleagues used neurophysics to further their mathematical and electronic studies. It was found that the concept or principle of the neural synapses with the "all or nothing" effect is similar to the binary action of computing machines. The predictions to be calculated fell into the same order to certain wave filters and energizing of the heart muscle. As the speed of the calculations needed in the "AA" or FLAK (FLA-Ueberwachung) control systems was much faster than possible with human calculations both Wiener and his colleague, Julian Bigelow, evolved the feedback concept while studying oscillations in the reporting mechanisms.[5] This compares with the biological nerve action. Those nerves sending or noting sensations are "afferent." When the signal from them is acted upon in the brain, or in some complex or plexus which shunts out immediate response signals, it is by action of the efferent nerves. The two parts (afferent-efferent) actually start the response usually through a nerve center direction. This action simulates the Cybernic system or Cybernics imitates the biological nervous system.

It was also found that the natural rhythm of the brain is somewhat like the scanning of television tubes. The pendicular moment of some electronic apparatus compares almost directly to the third level of the cerebral cortex. This again shows the nearness of Biology and mechanics to the Cybernetic concept.[6] Most of the salient material is to be found in the Cybernetics volume by Wiener. He wrote that another of their problems was the solution of delays or lags in response and regulation of responses within definite limits. Delayed signals can cause overcorrection or a hunting effect that of a loose governor. This delay is called (if of short time interval) HYSTERESIS which compares easiest to the return of an automobile tire profile to its round form after its compression on contact with the pavement. This causes a wave or ripple which can result in marked inefficiency.

The acceleration factor in the feedback process compenstes the Hysteresia by a multiplication device to increase the signal or its effect. This time parameter equalizes the total time lost in sensing the deviance and commanding its correction. The one delay must be balanced out by an acceleration of variable amplitude due to irregular and often non-cyclic changes. The electronic nets of circuits in the apparatus have calculated cycles to dampen out losses and inaccuracies over and under the requirement. Oscillations measured as vibrations or pulses are thus controlled by various electric or mechanical devices. Some are filters (as are used in radio and television) or even loaded idler pulleys in a mechanical system. Wiener notes that the level of non-linear oscillation and paired energy input-output must be equated.[7] This is a compensatory idea. In this manner a flywheel is used in a cylinder engine. The Threshold effect (to be described later) is also of significance.

The normal Cybernetic concepts may be shown in this manner: (1) raw material and energy input (2) compensator (3) a "subtractor in a relay with (4) feedback to sum up regulation (5) the "effector" or actual producation machine. To illustrate in another manner the raw material introduced to a running machine is controlled at its entrance (step a) the subtractor injects its message or instructions (step b) which it receives from the feedback assembly (step c) to direct or change the whole manufacturing process at the "effector" (step d). This is without consideration of the raw energy source which supplied all the power for CONTROL, CALCULATION, ADJUSTMENT, AND PRODUCTION which together is AUTOMATION.[8] If the production unit (effector) tends to lag due to, its design or the inherent characteristic of the process or the material the COMPENSATOR (#2 above) is designed to anticipate the delay and its quantity. By careful adjustment the device can keep the flow of product steady to that processes within the effector need not be changed for irregular feed or resultant pulses.

As some controls cannot make corrections in a single stage like in rifle marksmanship they may be made in controlled increments measured by FEEDBACK to produce the desired correction. That means we don't grind off 12 millimeters at one pass but make several passes to reach the full measure. The operation of some machines allow a total full first adjustment as a miller or a screw machine. Only a well-trained and experienced man can attempt to make the many precise adjustments in the EFFECTOR machine itself and even more expertness is demanded in the comlications of the FEEDBACK and other control devices. The possibility of a time lag in the correction of precision calls for a MULTIPLIER effect as the correction must be made as soon as it is detected. The over or under control must be dampened out so that no pieces come through under or over dimensioned according to strict standards.

The various sensors, which send signals of temperature, sound, and measurement to the Cybernetic assembly must be reckoned to an average as one signal might be too high or low to be within the range of automatic control. The sensors themselves have self operating parts that average out the signals. In fact the ordinary thermometer gives an average reading rather than a reading showing momentary variations.

The Averaging SENSOR is another segment of the FEEDBACK.[9]

Lag in control is comparable to the control of an automobile on icy pavement. The driver, if he knows his business and has a steering mechanism capable of sending messages to him through the feedback of the steering wheel,[10] anticipates a deterioration of frictional contact with the road and instead of making full directional corrections undercompensates several times to avoid a quick or continuous shift in vectors that could start a skid. In road racing an ordinary sharp turn is taken in a full four wheel drift (all wheels at the limit of cohesion) and if this fails power is applied to over compensate into a power slide. In a skid, with its loss of traction the inexperienced driver attempts to regain control by braking which increases the skid!

In this dangerous situation the expert immediately declutches to regain rolling control and then slows the car. In the feedback, multiplier, compensator complex such actions are computed as quickly as does the driver in this event. The electronic "brain" will calculate so rapidly to emerging variations that the onlooker would not be aware of its speed. The change signalled by a sensor resulting in the chain action of correction can also be compared to the response of a driver's reactions. The new techniques in the world of new machines are made less difficult through the science of Cybernetics. In the design of the machine are included its standards and its feedback complex. Instead of the driver getting his signals of new actions through the seat of his pants the fully automated device can do the same kinds of reactional corrections as for instance; the possible loss of control at speed in a front wheel drive car. The skilled driver increases his speed in a doubtful turn to reduce the tendency to yaw. The delighted onlookers at the number One turn of the Indianapolis track watch the drivers make several quick and short movements of their steering wheels to break a rhythmic sliding tendency. Such techniques are "learned" by the computer. Says Wiener, "We superimpose on the incoming message a weak high frequency imput and take off the output of the effector a partial output of the same frequency separated from the rest of the output by an appropriate filter..we modify...the characteristics of the effector".[11] The Brave Automobile Racers have their filters, effectors, grids, nets, and multipliers in their brains!

There is still another condition named HOMESTASIS much like that of living organisms which is slower but constant control system which maintains a vital (in the case of organisms) or productive (in machines) level of activity. This is also a factor in the Cybernetic process. In the organism it relates to such glands as the adrenal; in the machine it can be overload releases or even fuses.

The two systems used most in the feedback complex are the ordinary calculator, which is a numerical machine allowing the highest accuracy and speed especially if it functions on a binary (two place or two digit) system: the other is the Bush Differential[12] Analyser which is an analogue device. Sometimes the Differential Analyser has a superiority over the calculator if there be a need to choose among a number of contingencies. If too may signals confuse the machine sometimes the Analyser can make a choice. We must, of course, realize that the big Computers deliver up several answers to problems. The Analyser compares and selects the dominant answer as correct. In this way the Computer continually corrects itself.* One complex problem I sent to America had the machine confused! It was necessary to restate and reprogram the machine to get a solution but, in its first form no answer resulted.

The complexity of the computer feedback is compared to the human brain although its immense number of specific cells preclude comparison. For example, in the Olivary Tract related to the Cochlea (Inner ear) the number of cells in the SIXTH nucleus of man is 7260 in the left segment and 6070 in the right. These, it is thought, are sensitive to a range of sounds or impulses received. The mouse has only 130 on the left and 186 on the right.[13] Closer to the computer's potential! The nerve body-synapse-dendrite of the organic nerve complex operate on an all or nothing

*This was an IBM 940

principle such as in a Computer binary system. In the organism the reacted complexes reset themselves after each action. So also in the Feedback the single relay responds to a narrow range of signals only. The delay, compared to the synapse, must be balanced by a precise counter effect. Over response in the least degree would excite an equal reaction and result in a HUNTING action like that in a poorly connected or loose governor. The lag interval between the Cybernetic Feedback and its correction is reduced or cancelled by a rhythm complex which anticipates an impending variation. This compares to the scan of a television tube or the brain wave cycle. Trial and error by slowly moving in on a correction wastes time, increases scrap, and reduces efficiency.

The Sensor device message shows the error which then is neutralized by the chain of Sensor-Feedback-Multiplier-Control Corrector to bring the article to acceptable standards. The expert rifleman sees his error and then makes full correction in one stage. The less experienced shooter takes partial correction several times to "crawl" in to the center of his target. The machine stays at peak efficiency by its self measuring devices. The Master shooter can take full corrective measures because he and his weapon are in top condition.

The automated machine receives the impressions or signals by organs comparable to animal organs and like them in function. There are Hydrogen potentiometers, manometers, photoelectric cells, thermometers, microphones, and others operating motors, heating coils, solenoids, and yet more complicated type of sensor-effector complexes. To reduce error and loss of time the receptor, or sense organ connected to the effect has an intermediate set of elements (control system or feedback-Steuermann) which directs or sometimes merely stores information to be subsequently used. These are in such application as thermo-control units, auto-gyro-compass ship steering, self propelled missiles, target seeking missiles, AA (FLAK) fire control, automatic oil cracking stills (cat Towers) and ultra rapid computers. This automation uses many servo mechanisms. The textbooks on this subject are constantly running out of words to express specific ideas. The word "Rhocrematics" is of quite recent origin Meaning the flow of material in a manufacturing process. A theory worked out in Berlin in 1937 by Koopman, von Neumann, and Birkhoff dealt with the "new" Rhochrematic idea by a work path time measurement average computation.[14]

The ideas went on to the transformation of ideas as certain mathematic groups and constants. Wiener corrected variations due to Entropy(second law of thermo dynamics is the tendency to continually run down at an increasing rate) with real connoted mathematical solutions.[15]

The point that temperatures recorded by thermometers aren't precise but are only average marks the degree of precisions and speed the Cyberneticist has to work. The signal can be of negative entropy although the idea is difficult to perceive and possibly only by advanced mathematicians. The concept of negative lower case letter in its square root has an application in electrical circuitry so we are aware that mathematics are essential. If this isn't enough to baffle the reader Wiener goes on to explain the time concept can (?) be approached in motion by the study of Brownian Movement. (The visible rapid motion of tiny particles suspended in solution).[16]

The ramifications of Cybernetics, while far from simply observed are but trifling compared to the human brain in which about 10,000,000,000 (ten billion) cells act on combinations of pulses. This is several orders more complex than the more elaborate of computers. To go even farther the neurologist states that the nerve cells are 10,000 times slower than electronic circuits! They are so much smaller and the number of operations more complex and therefore far superior to the machine. The brain is less precise but highly reliable. The brain has enormous powers of selective preception. The big computers have high speed for solving rigidly specific data tasks although the computer now is at its beginning. The feedback (Cybernetic) measures errors in the manner of lower animals. The most powerful digital computer can't surpass the intelligence of an earthworm. 17

In the many signals sent into the feedback an amount of extraneous noises arise that must be taken out by a filter device similar to those in radio and television apparatuses. These are determined by precise experiments. 18 The sloppy control of over and under signalling is compared to Locomotor Ataxia (Tabes Dorsalis). The systems are so arranged to cancel out one over control with another. 19

In control devices of the computer class the storage of information is a major function. This isn't in the form of actual cards or pictures but in off or on single elements. This is in the same system as used in normal computers, that is the binary (digit one digit zero) used in mechanical-electronic calculations. These elements haven't anything close to MEMORY but are less likely to make mistakes within the range of their uses. The plus-minus effect obtained by a stored electric change in a condenser (Leyden Jar Effect). By this means an almost immediate response is produced. Multiple items are recorded on sound tape for playback. 20 Wiener reports the use of scanning devices to detect similarities which he calls a "group" recognition of a physical configuration. The outline effects are quickly compared. 21 The programmer sets up whatever he desires but only within the limits of his knowledge. If one should set up a chess playing machine it can always defeat another play within the skill of the programmer. If the player who sets up the machine is of moderate skill a better player could defeat it. The machine is altogether literal "minded" so therefore whatever is desired it does without self directed change or modification. Folk tales of the magic acquired wrongly by a person tell of the continuous work done by a direction and unable to stop without the needed "magical touch" such as in the broom to carry water but was unable to stop it. Automation could become such a broom' 22

The brain wave relationship is noted within the compensator and accelerator with their scanning techniques. The alpha brain wave is ten per second and is close to the scan of recognition devices and television picture tubes. The problem of "after image" from the device's electric condensers AND STORAGE AREA. The after image is that which is visible to the closed eyes after viewing a simply strongly outlined figure. This further complicates designs of self duplicating machines.[23]

The similiarity of game playing machines to Automation is marked by its single purpose action. In the Theory of Games by J. Neumann and O. Morgenstern it must be assumed that the player knows the rules and is ruthlessly trying to win within the rules. Of major interest is the idea of winning in the last move or blocking the opponent.[24] Because any machine is set up to perform a specific task it cannot be in error but in deviance. The person setting up the machine must know it will go on without response to deviations uhless it is so set up by its designer and adjuster.

The whole problem of sorting out signals and relays in feedback was foreseen a hundred years ago by Herbert Spencer who wrote before an electric motor was invented. We find in Lester F. Ward's PURE SOCIOLOGY this mysterious quotation from Spencer, H: Principles of Sociology, NYC, 1873, vol. 1, p. 355--

> For though when the confusion of a complex impression with some allied ones causes a confusion among the nascent motor excitations, there is entailed a certain hesitation; and though this hesitation continues as long as these nascent motor excitations or ideas of correlative actions, go on superseding each other; yet ultimately some one set of motor excitations will prevail over the rest. As the groups of antagonistic tendencies aroused will scarcely even be exactly balanced. The strongest will at length pass into action.[25]

Spencer could have been talking about Cybernetics instead of social relationships!

FOOTNOTES

1 DeLatil, Pierre; Thinking by Machine, Houghton Mifflin, Boston (Riverside Press, Cambridge, Mass) 1957-VIII (Introduction)

2 Wiener, Norbert: Cybernetics, 2nd ed., MIT Press and John Wiley and Sons, New York, London, 1961, p. 2

3 Wiener, op. cit., p. 2

4 Ibid. 6

5 Ibid., p. 113

6 DeLatil, op. cit., p. 13

7 Wiener, op. cit., p. 109

8 Ibid., 112

9 Science; American Association for the Advancement of Science, Washington, D. C., Vol. 154, No. 3749, November 4, 1966, p. 590

10 Road and Track; Bond Publishing Company, Newport Beach, California, vol. 18, no. 4, December 1966, p. 84

11 Wiener, op. cit., p. 113

12 Wiener, Ibid, p. 117

13 H. Harrison and R. Irving; "Visual and Non-visual Auditory Systems in Mammals," Science, Vol.154, no. 3750, p. 738, November 12, 1966

14 In Wiener, idem. p. 55 "ERGODIC" Egodentheorie, Ergeb. Mathe. 5, Hopf E. Springer, no. 2

15 Ibid., 55-58

16 Ibid., 58

17 Denczynski, S.; Automation and the Future, London 1964

18 Wiener, *op. cit*., p. 88

19 *Ibid*., 111

20 *Idem*, 124

21 *Ibid*., 138

22 *Ibid*., 176

23 *Ibid*., 200

24 Wiener, 170 quotes J. Neumann and O. Morgenster, "Theory of Games" in *Theory of Games and Economic Behavior*, Princeton University Press, 1944

25 Lester F. Ward, *PURE SOCIOLOGY*, MacMillan Company, NYC, 1907, Vol. 1, p. 154

(Invited paper - Meeting of Rural Sociology Section of the Association
of Southern Agricultural Workers, Jacksonville, Florida, Feb. 1-3, 1971)

THE REGIONAL MODELING PROGRAM AT OAK RIDGE NATIONAL LABORATORY

V. R. Cain
ORNL-NSF Environmental Program

Oak Ridge National Laboratory[*]
Oak Ridge, Tennessee

Abstract

The basic objective of the ORNL Regional Modeling effort is to produce a capability for predicting the future status of the environment in a given region. This objective will be achieved through the construction of a mathematical simulation model of the many complex, interacting processes going on in the region. The completed model will respond to changes resulting from such perturbing factors as new technologies, political or legal decisions or major industrial decisions. In order to achieve such a capability, to any extent that could be considered inclusive, a detailed understanding of the interactions between many technological, biological, physical, social, psychological, and economic factors is required.

The ORNL Regional Modeling team has developed objectives that may be generalized into two major research directions: (1) Development of a working demonstration model of a 16-county region that can serve as an example of new ways to approach regional problems through an understanding of interacting processes. (2) Development of submodels, tailored for specific problems, that interact with a limited number of processes, and that in the long run can interface with the more general model.

Several systems were modeled and effects simulated into the future. These included the population-employment sector of the environment, a spatially distributed simulation of activities sector, an intrinsic land use suitability sector and a first attempt toward measurement of degradation of the natural environment as affected by increased development.

[†] Work sponsored by the National Science Foundation.

[*] Operated by the Union Carbide Corporation for the U.S. Atomic Energy Commission.

Contents

Page

1. INTRODUCTION 1
    1.1 Modeling Perspective 1
    1.2 The Role of the Model User 2
2. THE CONCEPTUAL MODEL 2
    2.1 Physical Subsection 3
    2.2 Biological or Ecological Subsection 3
    2.3 Culture-Community Subsection 7
    2.4 Economics Subsection 7
3. MODELING DEVELOPMENTS 10
    3.1 The County Model 10
    3.2 The 16-County Model 18
    3.3 Analysis of Social Variables in Regional Studies 21
4. FUTURE PROGRAM 21

1. INTRODUCTION

The basic objective of the Regional Modeling Group in the ORNL-NSF Environmental Program is to produce a capability for assessing the present status and predicting the future status of the environment in a given region. This objective implies a broad, very holistic definition for "environment," and a system to permit measurement of "environmental quality."

This objective provides us with a rationale for including all those factors that can be shown to be influenced by or show an effect on man and his activities. This includes social and societal factors, even though most of our work to date has been aimed principally at physical consequences that do or can happen.

1.1 Modeling Perspective

Since a model must be used by someone, we must define our customer. We chose, as a focal point, to consider our initial customer to be a regional planner. We describe this planner as a person who: (1) must deal with real life problems; (2) needs to attack them rationally; (3) realizes the complexity of the system and the need to consider large regions; and (4) is willing to interact with a mathematical model in order to evaluate the total impact of a decision or plan of attack.

We have also developed the following guidelines for the regional modeling effort:

a. The model should simulate the human ecosystem and not attempt to provide direct optimum solutions;

b. The user, or decision maker, must be able to interact with the model (the model can provide information to the user and serve as an educational tool but it should not attempt to impose its will on the decision maker);

c. Two basic testing techniques that must be used are: (1) Given a set of initial conditions at a past time point, the model must be able to duplicate or approximate history; and (2) Relevance of the model must be demonstrated by periodic application to test problems. The degree of success in these tests will indicate the proper direction for future development.

d. The model must be comprehensive. The total system must be extensively understood before any problem can be solved adequately. Too many past efforts have achieved limited success either because of excessive problem-orientation or omission of critical processes in the system. For example, there is a tendency to omit all socially-related factors because of the inherent complexities and since at present we have little knowledge in this sector. It is still useful, however, to include a first approximation of these societal processes to provide a base on which to build.

e. Initial model structuring and development should have an empirical focus. After the model is structured and confidence in the model has developed, it is time to improve the theoretical bases of the process descriptions.

f. There is a need for a total human ecosystem model, structured in such a way that more detailed submodels may be inserted as necessary. This will provide the detailed data required for a specific problem and still retain the comprehensiveness inherent in the basic model.

There are no existing models fitting all the above criteria. Those existing models which approach these requirements cannot be easily adapted to a different region because of lack of generality.

1.2 The Role of the Model User

We also recognize that our knowledge about many aspects of the human ecosystem is far from complete. This situation, along with the massive quantities of data, seems to dictate an empirical combination of computer-based synthesis techniques coupled with more traditional analytical methods. The empirical and pragmatic viewpoint, combined with the need for considering the broad cross-disciplinary aspects, leads to the necessity for an interdisciplinary team working interactively with a time-shared digital computer.

The regional model is inherently an informational, decision-making tool and not a decision maker. For example, it is reasonable to expect a model to provide information about the relative suitability of a particular location as a site for a certain industry (or even to pick the best location in a given area). The model will also provide data on the probability that the given industry will actually locate at a given location. Beyond this user intervention must occur. The model is an educational tool that cannot function alone, but requires the interaction provided by a human user. This again leads to the necessity for careful consideration of the requirements of the man-machine interface.

2. THE CONCEPTUAL MODEL

We divide our consideration of the human ecosystem into the four categories of:

1. Physical. This segment includes: land, air, and water resources, with the aim of predicting changes in land use, and changes in air and water quality.

2. Biological-Ecological. Here are included the effects of changes in the physical environment on the biological systems, such as pollutant effects on plants and animals.

3. Cultural. This includes education, health, population, income, employment, housing, etc. Any useful effort toward improving the environment must include these social and cultural contributions to the "quality of life."

4. Economic. We have placed all "production" in this segment. Production may be negative (consumption of raw materials or resources) or positive (output of products and effluents), and may include non-physical production, such as services.

Clearly, these four segments of the human environment are not independent of one another and major efforts must be made to identify and quantify the important interrelationships.

The general approach in each of these was to define a minimum set of variables that were measurable, necessary, and hopefully sufficient to predict a large set of indices, and, most importantly, that were interactive (implying that all historically significant feedback loops were included). Each of these four categories is discussed in more detail below.

2.1 Physical Subsection

The methodology of the physical subsection of the model requires diagnostic understanding of biophysical processes and the effects of externally induced change on these processes. With such an understanding of the processes, land uses can be located geographically according to their intrinsic suitability. This knowledge, integrated with the biological, cultural and economic subsections could then be used to make projections on future land use changes or "growth" of the region.

A working model of the physical environment contains an inventory of the physical phenomena and natural processes in the region such as: climate, geology, physiography, hydrology, pedology and man-made land uses. These phenomena are then interpreted to determine suitable land uses. That is, the physical characteristics of a particular plot determine the opportunities and constraints.

Figure 1 shows the generalized scheme being described here. The figure depicts a mathematical model for the physical subsection, which is essentially a mathematical mapping of physical variables onto suitability for various land uses. The region would be divided into a suitable grid of x-y points. The physical characteristics of each point are quantified and used to increase or decrease the suitability of that plot for each of a number of potential land uses. In a further application, physical parameters are combined with and driven by demand from other subsections of the total model to define probabilities for a plot to change from its current land use into any other land use during an interval of time. The probabilities would be utilized in a Markov process model to project changes in land cover in the region.

2.2 Biological or Ecological Subsection

The biological components of man's environment have incurred some of the most serious effects of society's disregard for the long-range consequences of its activities. An ecological submodel, which deals with the effects of human activities on the animals, plants, soil, etc., therefore, will be an essential part of the regional model. The basic need is to

Fig. 1

ORNL-DWG 70-11321

LAND USE VARIABLE INTERACTION

(Schematic Matrix)

GENERALIZED LAND USES

VARIABLES	Residential	Commercial	Industrial	Transportation	Recreation	Agricultural	Forestry	Extraction	Protection
Climate									
Physiography									
Geology									
Hydrology									
Pedology									
Plant and Animal Ecology									
Cultural and Land Use Related									

acquire a capability to predict the movement of material and energy through the system and to predict the quantitative and qualitative effects on the ecosystem.

The specific analysis scheme is the so called "cross-impact method," which is in fairly common use. In it, all features or quantities of importance are listed, both as row and column definitions of a square matrix. Thus a matrix element E_{ij} represents the effect of property i on property j and element E_{ji} does the inverse. In the way of explanation, here is a simple example: The interaction of crime and poverty:

EFFECT

		CRIME	POVERTY
CAUSE	CRIME		(2)
	POVERTY	(1)	

Now (in this oversimplified example) the matrix has very complicated functional relationships in positions (1) and/or (2). By logical definition, the diagonal is always empty. Our modern view is that cause-effect appears mainly in (1): Poverty causes crime. But the social-Darwinian theory of the last century would have put it the other way, in position (2): Crime breeds poverty; hence righteousness breeds wealth - a very comfortable view for rich social scientists.

Figure 2 is the 31 x 31 matrix of the ecological cross-impact matrix. Note that there are submodels following the main diagonal: Let us look at the farm submodel, for example. As a cause, crops (Row 9) have strong transfers to pests, animals, and soils. Pests (Row 10) influence crops and have minor effects on animals and soil. Animals (Row 11) affect pests and soils strongly. Finally, the soil itself affects crops strongly, and pests and animals less so. But notice in passing that farm crops (Column 9) are also affected by air (Row 2), and water supply (Rows 16, 20, 25) and by other quantities to a lesser extent.

The mathematical model is constructed by developing a differential (or difference) equation for each state variable in Figure 2. The terms of the equations express processes by which material is transferred between the state variables. The model would then predict the movement of materials and subsequent concentrations in each portion of the ecosystem.

Resources such as pulpwood can be withdrawn from the state variable for forest vegetation and industrial or municipal effluents can be introduced as forcing functions into any part of the system. Other effects, such as those resulting from intensive recreational use, can be introduced as altering parameters of the model.

Fig. 2

ECOLOGICAL SUBMODEL

ORNL-DWG 70-9429R

AFFECTED FEATURES →

SOURCE FEATURES ↓

ECOLOGICAL MODULE

Single Watershed Module

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Physical Module		1			o		o	o		o	o	o		o	o	o	o				o				o								
Air		2	o		X	o	X	X	o	X	X	o	o	X	X	X	X	X				X					X				o	o	o
Forest:	Vegetation	3		X		X	X	-	-				-					X				-				-	-			-	o	o	X
	Consumer	4			o		X	o	-	-	o	o	-					-	o	o		-				-		o		-		-	-
	Soil	5	o	X	X	-				X				X			X	X			-	X			-	-	-			-		X	X
Field:	Vegetation	6		X	X	-			X	X		-	-					-								-	-			-		-	
	Consumer	7				-		o		X	o		-					-				-										-	
	Soil	8	o	X			X	X	-					X			X	X				X				-	-			-		X	X
Farm:	Crops	9		X		-			-			X	X	X												-	-			X		X	-
	Pests	10			o	-	-	o	-	-	o		-	-						-				-		-		-		-			
	Animals	11				-	-	o	o	-		X		X				-	o			-		o						X		X	-
	Soil	12	o	X			X			X	X	-	-				X	X				X										X	X
Urban:	Residential	13		X												X	X																
	Industrial	14	o	X											X		X																
	Soil	15	o	X			X			X				X				X				X				X	X		X	X		X	X
Stream:	Water	16	o	X		X			X		X		X						X	X	X	X					X					X	X
	Plants	17				-			-									-		X	X	-					X						
	Consumers	18				-			-									-	o		-	-		-			X					X	
	Substrate	19																X	X	-		-					-						
Wetland:	Water	20	o	X		X	-		X	-	X		X	-				X					X	X	X		X					X	X
	Plants	21				-			-											-		-		X	X		X						
	Consumers	22				-			-											-		-	o		-		X					X	
	Substrate	23																			-	X	X	-			X						
Other Watersheds		24		X		-	-	-	-	-	-	-	-	-													X					X	X
River:	Water	25	o	X		X			X		X		X																X			X	X
	Organisms	26				-			-																				X			X	
Reaches up - and downstream		27									-		-														X	X		X		X	X
Export & Imports for Region		28			-	-	-	-	-	-	-	-	-	-																		X	X
Cultural Module		29			o	o			o																								
Community Module		30		o	o	o	o	o	o	o	o		o	o			o	o	o	o		o		o			o		o	o			
Industry Module		31		X	o		X			X	o	o	o	X			X	X				X					X		X	X			

X = strong transfer

- = minor transfer

o = influence

2.3 Culture-Community Subsection

Perhaps the least understood and most interactive aspects of the human ecosystem are contained in this section. Consideration must be given to characteristics of the individual population and households, cultural indicators and government structures and programs such as education and health services. This submodel also is developed by cross-impact analysis, and is shown in Figure 3.

Each of these characteristics will be broken down in some detail. For instance under individual characteristics, population by age, sex, education and ethnic background will be included. The variables under "culture" seem to fall naturally into societal characteristics and activities. We have included under societal characteristics such things as flexibility, organization, dependency and anomie. Flexibility is a measure of a community's ability to adapt or change and might be measured by the way values, education and profession vary from father to son. Organizational ability and status might be measured by numbers of active memberships in various organizations, by voter turnout or by church attendance. Dependency is an indication of the ability of people to sustain themselves. Measures of dependency include the numbers of disabled, unemployed and welfare recipients. The attitudes that foster these measures are not so easy to quantify. Anomie is a measure of the breakdown of social norms. It includes such things as suicide and homicide rates and drug abuse. Under community activities we include such things as religion, communication, and recreation. A predictive theory is needed for each of the variables. Specialists must be consulted to obtain state-of-the-art theories for each and the list will be expanded or contracted to reflect the requirements of each theory.

2.4 Economics Subsection

While we all realize that the standard economic measures are faulty, we must start our efforts somewhere and the economic system is a large chunk of the human ecosystem. While replicating standard economic models is in itself a large learning experience, even this is being done with an eye towards escaping from a too-narrow view of the economy as a world unto itself (i.e., a closed system).

Initially we are modifying the standard Leontief interindustry model[1] (the portion of Figure 4 labeled as Economic) to consider the "material balance" between physical inputs and outputs. That is, since most processes do not convert all physical inputs into saleable or useful outputs, a "residual" or waste flow results. The residuals are being added, in a crude manner initially, to the output side of our economic model (the portion labeled as Physical and Ecological at the top of Figure 4). In addition, there are frequently significant environmental services (e.g., cooling water) that do

---

[1] Leontief, Wassily, Studies in the Structure of the American Economy, New York, Oxford University Press, 1953.

Fig. 3

ORNL-DWG 70-11212R

CULTURE-COMMUNITY SUBMODEL

X = strong influence

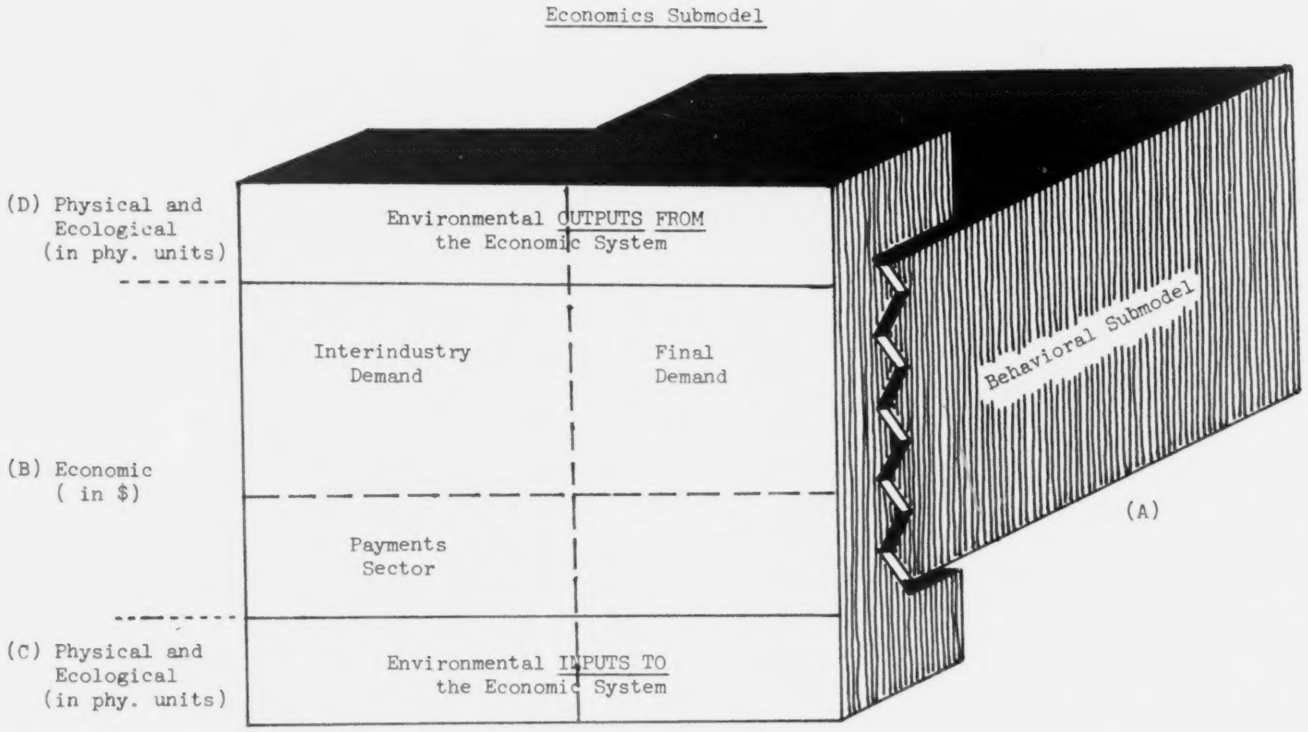
- = weak influence

AFFECTED FEATURES →

SOURCE FEATURES		Population	Health	Occupational Capability	Students	Heads	Income	Expenses	Saving	Housing	Flexibility	Organization	Dependency	Anomie	Religion	Communications	Recreation	Classrooms	Teachers	Training	Income	Expense
Individuals:	Population				X	X	X			-								X				
	Health	-				-	-	-			-	-	X	X		-	X					X
	Occupational Capability						X				X	X	X	-		-						
	Students										-	-	-	X	-	-	-	X	-		-	X
Households:	Heads	X		X									X		-							
	Income		X	-	X			X	X	X	-		X	-							X	
	Expenses												X	-	-	-	-				X	
	Saving				-					X					-							
	Housing		-			-		-				-	X		-						X	
Culture:	Flexibility			-			-					X			X	-				X		
	Organization						X								X	X	-	-	-			X
	Dependency		X	-			X					-	X	-				-	-		X	
	Anomie										X	X										
	Religion				-		-				-	-	X			-					-	
	Communications											-	X		-		-					
	Recreation						X					-			X	-						
Education:	Classrooms										-											-
	Teachers				-						-								X			X
	Training	-		-																		X
Government:	Income							X		-	-		-	-	-			X	X	X		X
	Expenses			-		-	-			-			X	X	-	-	-			-		
Physical Environment			-			-											X					X
Biological Environment			-														X					X
Economic Sector			X		-	-	X	-	X	-		-	-				-		X	X	X	X
External						X	X	X	X	X					X	X		X	X		X	

Fig. 4

ORNL-DWG 70-12010


Economics Submodel
(D) Physical and Ecological (in phy. units)
(B) Economic (in $)
(C) Physical and Ecological (in phy. units)
Environmental OUTPUTS FROM the Economic System
Interindustry Demand
Final Demand
Payments Sector
Environmental INPUTS TO the Economic System
Behavioral Submodel
(A)

not pass through marketplaces but are important inputs to production and consumption processes. These are being added to the input side of our model (at the bottom of Figure 4).

Completing our economic model will be a very important behavioral submodel (shown as the depth dimension in Figure 4) explaining the demands for final products by consumers within the region. This model will rely heavily on existing socioeconomic theories, supplemented by any we may discover during our modeling experience.

It is expected that the Economic Submodel will be able to translate sociocultural conditions at A dynamically into product demands upon the industrial system at B and subsequently into nonmarket inputs demanded of the physical and ecological subsystems at C and residuals supplied to the physical and ecological subsystems at D.

3. MODELING DEVELOPMENTS

Our modeling work has been based thus far on two geographic regions: (1) a single county--Campbell County, Tennessee, and (2) a 16-county region--the East Tennessee Development District. These are shown in Figure 5.

3.1 The County Model

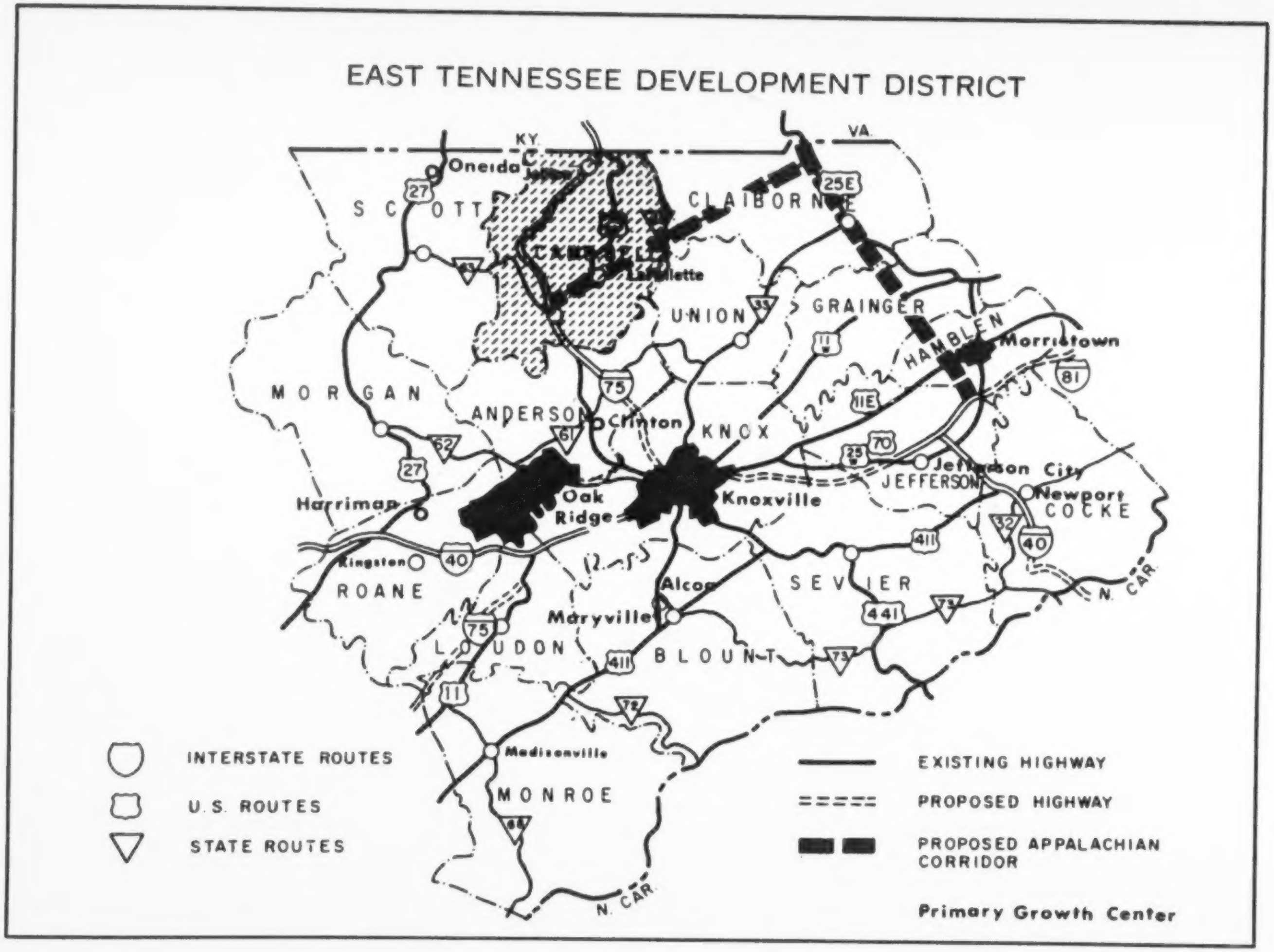
The first test region selected was Campbell County, Tennessee, which seemed to fit our needs for the following reasons: (1) There was a large quantity of physical, societal, and economic data in a usable form, and (2) It is a typical rural Tennessee county insofar as economy, size, population, growth, immediate problems, etc. Four submodels were constructed which will later interact in a total human ecosystem model: (1) An intrinsic land use suitability submodel, (2) A land use simulation submodel, (3) A soil loss prediction submodel, and (4) A socio-economic problem-oriented submodel. The first three models used the same data base, which was developed by superimposing a one square mile grid over the county map and recording the physical variables within each cell by primary characteristics (50 percent or more of the cell possessing that characteristic) and a secondary characteristic (the presence of up to 49 percent). The types and categories of data acquired for the three physical submodels are shown in Figure 6. For example, the data for existing public facilities is divided into the four categories of: (1) water service; (2) sewer service; (3) postal delivery; and (4) no services. Figures 7 and 8 are computer printouts of some sample data. Primary and secondary values of 1970 land uses are shown in Figures 7 and 8, respectively.

The land use suitability submodel follows the ecological planning techniques used by Ian McHarg and his associates.[2] McHarg's technique consists of quantizing physical variables into several categories, then shading areas on translucent acetate maps, with each shade corresponding to a quantized

---

[2] Ian McHarg, Design with Nature, Falcon Press, Philadelphia, Pa., 1969.

Fig. 5



EAST TENNESSEE DEVELOPMENT DISTRICT

Fig. 6

ORNL-DWG 70-13285

DATA FILE:

PHYSIOGRAPHY
1. 0-5% SLOPE
2. 5-20% SLOPE
3. 20% AND OVER SLOPE

GEOLOGY
1. ALLUVIAL DEPOSITS
2. CROSS MOUNTAIN FORMATION, VOMELL MOUNTAIN FORMATION, GRAVES GAP FORMATION, INDIAN BLUFF FORMATION, CROOKED FORM GROUP, CRAB ORCHARD MOUNTAINS AND GIZZARD GROUP.
3. RED OAK MOUNTAIN FORMATION, SLATE STONE FORMATION.
4. NEWMAN LIMESTONE, PENNINGTON FORMATION, FORT PAYNE FORMATION, SEQUATCHIE FORMATION, CHICKAMAUGA GROUP, CONASAUGA GROUP, MAYNARDVILLE LIMESTONE, MARYVILLE-RODGERSVILLE-RUTLEDGE FORMATION.
5. CHATTANOOGA SHALE
6. ROCKWOOD FORMATION
7. NEWALA FORMATION, COPPER RIDGE DOLOMITE, MASCOT DOLOMITE, KINGSPORT FORMATION, LONGVIEW DOLOMITE, CHEPUITEPEC DOLOMITE.

PEDOLOGY - SOIL ASSOCIATIONS
1. MUSKUGUM-JEFFERSON-BARBOURVILLE
2. PHILOAKINS-JEFFERSON
3. HARTSELLS-MUSKUGUM-PHILOAKINS
4. TALBUT-CAYLOR-ROCKLAND
5. FULLERTON-BOLTON-CLARKSVILLE
6. ARMUCHEE-SEQUOIA

EXISTING VEGETATION
1. TREE COVER
2. GRASS FIELDS OR AGRICULTURE
3. LIMITED VEGETATION-URBAN

HYDROLOGY
1. PER.STREAMS AND RIVERS
2. INTERMITTENT STREAMS
3. NORRIS LAKE
4. CLINCH-POWELL WATERSHED OUTSIDE NORRIS LAKE WATERSHED
5. NEW RIVER AND ELK CREEK WATERSHED
6. NORRIS LAKE WATERSHED
7. NO MAJOR STREAMS

ACCESSIBILITY
1. INTERSTATE INTERCHANGE
2. PAVED ROAD
3. BITUMINOUS ROAD
4. GRAVEL OR GRADED ROAD
5. RAILROAD LINE
6. AREA CUT BY INTERSTATE HIGHWAY
7. NO ROADS

EXISTING LAND USE
1. SINGLE FAMILY DWELLING
2. COMMERCIAL
3. INDUSTRIAL
4. PUBLIC AND PRIVATE OPEN SPACE
5. MINE, SAWMILL
6. LANDFILL, SAWMILL
7. OPEN LAND

PROPERTY OWNERSHIP-SIZE IN ONE PARCEL
1. 0 - 100 ACRES
2. 101 - 500 ACRES
3. 501 - 1,000 ACRES
4. 1,001 - 5,000 ACRES
5. 5,001 - 10,000 ACRES
6. 10,001 - 50,000 ACRES
7. TVA OWNERSHIP

EXISTING PUBLIC FACILITIES
1. WATER SERVICE
2. SEWER SERVICE
3. POSTAL DELIVERY
4. NO SERVICES

PROPERTY VALUES/ACRE
1. $50 OR LESS
2. $51 - $200
3. $201 - $500
4. $501 - $1,000
5. $1,001 - $2,000

SCENIC AREAS
1. UNIQUE NATURAL
2. MAJOR LOOKOUT
3. MANAGEMENT AREAS
4. MAN-MADE
5. MAJOR ESCARPMENT
6. NO MAJOR RESOURCE

Fig. 7

ORNL-DWG 70-13283

```
            7 7 7 7 1 7 1 1 1 1 1 7 7 7
            7 7 7 7 7 1 1 1 1 7 7 7 1 7 7
              7 7 7 1 1 1 2 7 7 7 7 7 7 7 1
              7 7 7 1 1 7 1 7 7 7 7 1 1 1 1
              7 7 7 1 1 1 1 1 7 1 1 1 1 1 7
            7 1 1 7 1 1 7 1 1 1 1 7 7 7 1 7 7
    7 7 1 7 1 1 1 7 7 1 7 7 1 7 1 1 7 1 7 7 7
    7 7 7 7 1 1 7 1 1 7 7 7 1 7 1 7 7 7 7 7 4
    7 7 1 1 1 7 7 1 1 7 7 7 7 7 7 7 7 7 7 7 7 7
    7 1 1 1 7 7 7 7 7 7 7 7 7 7 1 1 7 7 7 7 1 1
    7 1 7 7 7 7 7 7 7 7 7 7 7 7 1 7 7 1 1 7 1 1 1
    7 1 1 7 7 7 7 7 7 7 7 7 7 7 2 7 1 1 1 1 1 7 1
    7 7 1 7 7 7 7 7 7 7 5 7 1 7 7 1 1 1 1 1 7 7 1 7
      7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 1 1 1 1 7 7 7 7
      7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 7 7 1 1 7
      7 7 7 7 7 7 7 7 7 7 1 1 1 1 1 7 1 1 1 7
    7 7 7 7 7 7 7 7 7 1 2 1 1 1 7 1 1 7 7 4 7
    7 7 7 7 7 7 7 1 1 1 1 1 7 1 1 1 1 7 7 7 4
    7 7 7 7 7 1 1 1 1 1 1 1 7 1 1 1 1 7 4 4
    7 7 7 7 7 1 1 1 1 1 1 1 7 1 1 1 1 7 7
    7 7 7 7 7 7 1 1 1 7 1 1 7 7 7 1 7 7 7 4
    7 7 7 7 7 7 7 1 7 7 1 1 1 7 7 1 7 7 4
  7 7 7 7 7 7 7 7 1 1 1 1 1 1 7 7 1
7 7 7 7 7 7 7 7 7 7 1 1 1 4 4 7 7 7
7 7 1 1 1 7 7 7 7 7 1 1 1 1 4
7 7 7 7 1 7
    7 0 0 7 7 7
            7 7
            7
```

EXISTING 1970 LAND USE
PRIMARY VALUES

1. SINGLE FAMILY DWELLING
2. COMMERCIAL
4. PUBLIC AND PRIVATE OPEN SPACE
5. MINE
7. OPEN LAND

SOURCE: (1) TENN. DEPT. OF HIGHWAYS, 1968
(2) U.S.G.S. 1:250,000, 1965
(3) E.T.D.D. CAMPBELL COUNTY COMPREHENSIVE PLAN, 1969
(4) TENN. MAPPING & ENG. SERVICES, INC. - CAMPBELL COUNTY PROPERTY OWNERSHIP MAPS
(5) FIELD SURVEY, 1970

Fig. 8 ORNL-DWG 70-13284

```
            7 1 1 7 2 1 7 2 2 2 5 5 1 1
            7 1 7 7 1 1 2 2 6 1 1 1 2 1 7
              7 2 1 2 2 1 7 7 7 7 7 1 1 7 2
              7 7 7 7 1 7 7 7 7 1 7 5 1 1 1
              7 1 1 7 1 1 5 7 7 1 7 5 2 7 7
            7 1 1 7 1 1 7 2 7 2 1 1 1 1 1 7 7
    7 7 7 7 1 1 7 7 1 7 1 1 7 1 7 2 1 5 1 1 4
    7 7 1 1 2 2 1 2 2 7 7 1 7 5 7 2 1 1 1 4 4
    7 1 5 1 1 7 7 7 5 1 1 1 1 5 1 1 1 1 7 4 4 4
    7 7 2 1 1 1 1 1 7 7 7 7 5 7 7 1 1 7 7 1 1 2
    7 2 5 7 1 1 1 7 7 7 7 7 7 3 2 1 1 1 1 1 2 2 1
    7 2 2 7 1 7 7 7 7 5 1 7 7 2 1 1 1 2 1 6 4 1 1
    1 1 7 7 7 7 7 7 7 7 7 1 2 2 1 2 2 2 1 2 1 1 1 1
      7 7 5 1 7 7 7 7 7 1 5 2 3 1 2 1 2 2 1 1 7 2 7
      7 7 1 1 1 7 7 7 7 7 3 2 2 1 2 1 1 2 2 1
      7 7 1 7 7 7 7 7 7 1 2 2 1 1 2 1 1 1 2 1
    7 7 1 7 7 7 7 7 7 2 3 2 2 2 1 1 7 1 1 2 4
    7 7 1 1 7 1 1 3 2 3 6 5 1 7 1 2 4 7 7 7 4
    7 7 7 7 7 5 2 1 1 2 1 7 7 5 1 1 1 4 4 4
    7 7 7 7 7 2 4 6 1 1 2 1 1 1 1 2 4 7 7
    7 7 7 7 5 1 2 2 4 1 1 1 1 1 1 1 7 7 4 4
    7 7 1 5 7 5 1 1 1 1 2 2 7 7 7 1 4 7 4
  1 7 7 7 2 1 7 7 2 1 1 2 1 1 1 7 1
7 1 7 7 7 1 7 5 7 7 2 1 1 1 4 4 7 7
7 7 2 2 2 1 5 7 7 7 2 1 1 1 4
7 7 1 1 2 7
    7 0 0 7 7 7
            7 7
            7
```

EXISTING 1970 LAND USE
SECONDARY VALUES

1. SINGLE FAMILY DWELLING
2. COMMERCIAL
3. INDUSTRIAL
4. PUBLIC AND PRIVATE OPEN SPACE
5. MINE, SAWMILL
6. LANDFILL, DUMP
7. OPEN LAND

SOURCE: (1) TENN. DEPT. OF HIGHWAYS, 1968
(2) U.S.G.S. 1:250,000, 1965
(3) E.T.D.D. CAMPBELL COUNTY COMPREHENSIVE PLAN, 1969
(4) TENN. MAPPING & ENG. SERVICES, INC. - CAMPBELL COUNTY PROPERTY OWNERSHIP MAPS
(5) FIELD SURVEY, 1970

value. These maps can then be superimposed and placed on a light table to form a composite map related to the intrinsic suitability for a particular land use. Although these techniques have been very successfully applied to many problems, there are disadvantages. One of these is that the numbers of translucent maps that can be combined is limited to eight or ten. It is also difficult (although not impossible) to modify the *weight* given to a particular physical variable. This can be done by redrawing the map and changing from a white to dark gray scale, to a white to light gray scale, for instance.

Many of the problems are alleviated by the use of the digital computer. The acquisition, storage, retrieval, superposition, or other manipulation, and display of data can all be handled efficiently with the aid of the computer. Our initial effort in the construction of the intrinsic land use suitability submodel was to demonstrate the advantages that could be gained.

Figure 9 shows the value system, or weighting system, that was used to transform the physical data into intrinsic suitability for agricultural use. The top half of the array applies to primary characteristics and the lower half to secondary. As an example J=1 applies to slope so that primary slope values of 0-5%, 5-20%, or 20% and over are assigned values of 3, -5, or -10 respectively. Similarly the secondary slope characteristic (K=2 and J=1) are given the values 2, -3, or -8. Therefore, the contribution of slope to the agricultural suitability can range from -18 up to +5. The contributions of the other variables are obtained in similar fashion and all are summed to give the total suitability index. A sample print of the agricultural suitability index is shown in Figure 10. The submodel as it now stands can also calculate the indices for urban, industrial, protection needs (e.g., rare ecological features), passive recreation, extraction, forestry, and deer hunting suitabilities.

The land use simulation submodel uses population growth projections developed by the East Tennessee Development District staff and spatially distributes this expected growth within the region. It is felt that this model will be useful to evaluate similar growth projections developed by other planning agencies such as TVA. This submodel also interacts strongly with the user. Before each annual run the user inputs the expected demand figures; thus the decision maker can make estimates of the effects of various growth patterns by providing modified projections. An example might be the effects of increasing or decreasing industrial growth rates within the model. It is anticipated that in our next phase of development we will greatly elaborate the model of the surrounding region (Section 3.2 below) and will be able to use our own population and employment projections to drive the model.

The soil loss prediction submodel uses the U.S. Department of Agriculture, Soil Conservation Service's universal soil loss formula,[3,4] modified

---

[3] *Report of the ARS-SCS Workshop on Soil Loss Prediction in the Northeastern States*, New York (1962).

[4] C. H. Jent, Jr., F. F. Bell, and M. R. Springer, *Predicting Soil Losses in Tennessee under Different Management Systems*, Bulletin No. 418, University of Tennessee Agricultural Experiment Station (1967).

FIG. 9

```
K= 1
J= 1      3     -5    -10      0      0      0      0
J= 2      3     -3     -3      3      0      0      2
J= 3     -8      5      5     10      1     -1      0
J= 4     -6      6     -3      0      0      0      0
J= 5     -3     -2      0      0      0      0      3
J= 6     -3     -2      3      2      0     -1     -2
J= 7     -2     -8      0      1     -3     -2      5
J= 8      1      1      1      1      1     -3     -1
J= 9     -5     -5      3     -2      0      0      0
J=10      3      2     -1     -2     -3      0      0
J=11     -3      0      2     -2     -3      0      3
K= 2
J= 1      2     -3     -8      0      0      0      0
J= 2      1     -1     -1      2     -2     -2      1
J= 3     -1      5      5      5      0      0      0
J= 4     -2      4     -3      0      0      0      0
J= 5     -2     -1     -8      1      1     -2      0
J= 6     -5     -1      3      2     -3     -1     -2
J= 7      1     -5     -5      1     -5     -5      3
J= 8      1      0      2      0      0     -2      1
J= 9     -3     -3      1     -1      0      0      0
J=10      1      1      1     -1     -2      0      0
J=11     -3     -1      1     -1     -2      0      2
```

VALUE SYSTEM FOR AGRICULTURAL SUITABILITY CALCULATION

FIG. 10

```
            23373238272541403130412422325251
            33313132  545731--223641--28285151
              232828355242313126--2737384737
              242732463931413226252344433743
              253338432344412832--3449545522
            3120294620393930212327284545594724
    253135322245373337362739412934--3325344623
    202543426045363 1--2725324320402639294026--
    20294872593541262838373638243555454022303936
    3037644025264031423125263431364439--35477477
    3543233245483037372631253220323639627477686558
    3731--  363726273127333438----287075++56675951
    2132--323338384035372628----4161707968  61645247
      2021242941333628362 5----6278796558454353585452
      352023363423233333----366265614255  4354
      36312728373837----3847  5452534646594156
    21252427323428--26254849514058534860684451
    2526--213128--354948516842545448304847  40
    2525252133--4065637371494851546852483844
    2525252322--36455680484248495953  5141
    26313135--302940544635435248485947554954
    3226292234--293947543952  565453526648
  3725312624332321335652384646515346
32313426363931--32304648485440535652
212931333538232132393860513346
262532282132
    34    352636
            3031
            26
```

RELATIVE INTRINSIC SUITABILITY FOR AGRICULTURAL LAND USE--CAMPBELL COUNTY, TENN.

```
++  MOST SUITABLE
79
 .
 .
 .
 .
20
--  LEAST SUITABLE
```

to accept categorized rather than continuous data. The output was in two forms: A map showing the major and minor sections of the square mile cells classified into eight soil loss ranges expressed in tons per acre per year. A second output, complementary to the map, is a matrix which shows the expected loss under different sets of ground cover and use conditions. Again there is a strong element of interaction between the user and the model. In this case the user has the ability to hypothetically change certain conditions within each cell, such as cover type (i.e., forest, agricultural crops, urban development) and soil conservation practices that might be used. In this way the user can determine expected soil losses by selecting existing or hypothetical combination of variables.

The socio-economic problem-oriented submodel we are using was modified from a model developed for the Office of Economic Opportunity.[5] It is a "point model" of the county (having no spatially distributed data) concerned primarily with employment, housing, and impact of job training programs. The restricted focus of the model was not considered a handicap because we considered this initial effort primarily a training tool for experimentation in socio-economic model structure and programming techniques. Toward this end, we have begun to modify the decision options and the input-output formats to more closely match the problems and needs of local planners and decision makers.

As anticipated, none of these submodels are yet capable of being implemented for solving actual problems; however, the group has become aware of some of the pitfalls and areas needing additional research, e.g., the relationships between variables, data standardization, improved societal data.

3.2 The 16-County Model

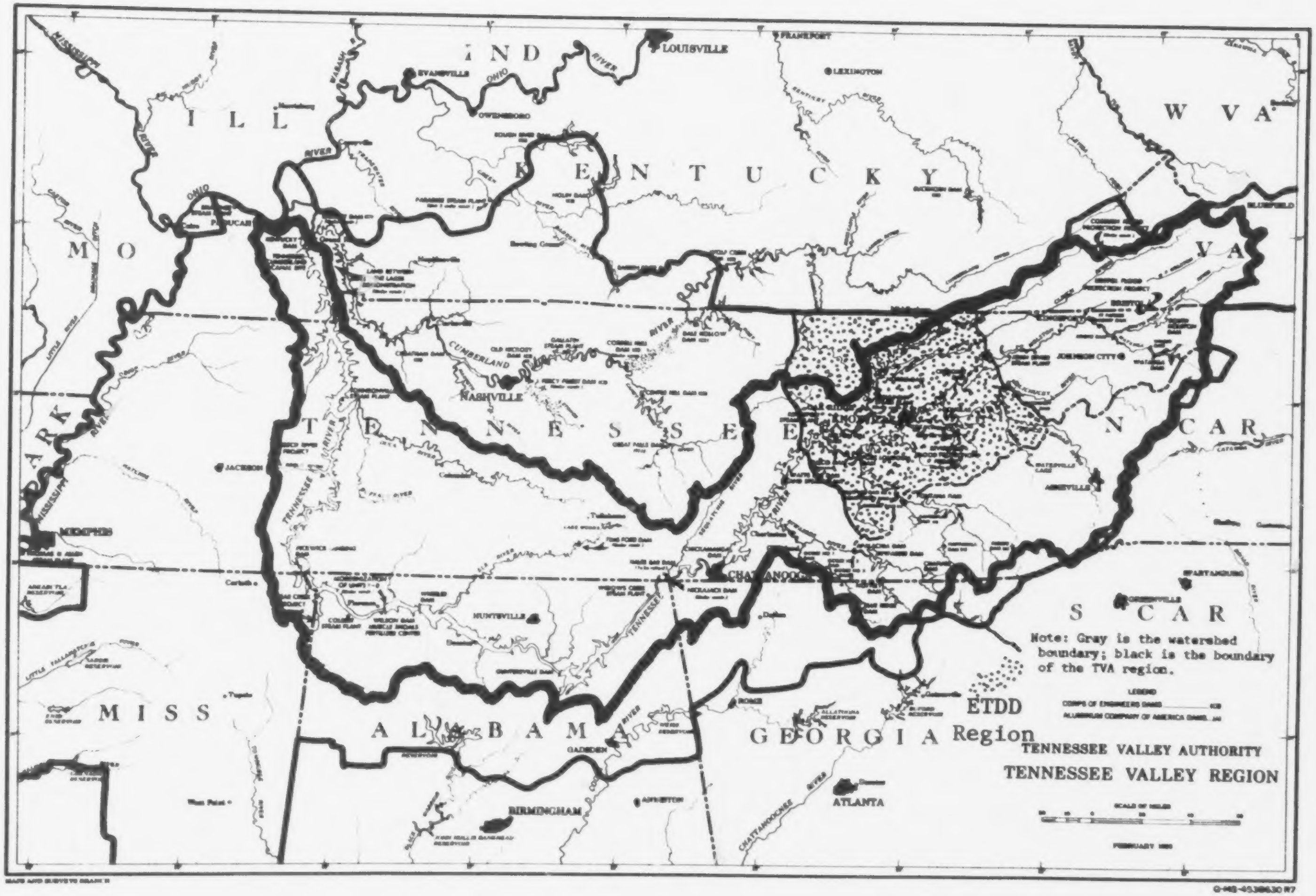
For our first comprehensive modeling effort we selected the East Tennessee Development District, shown as the dotted area in Figure 11. The physical boundary of ETDD includes 16 counties with the Knoxville metropolitan area as the center. It is a planning region originally established for the Appalachian Regional Commission, but its jurisdiction has since been modified to include a role in all federally funded local programs and to provide planning service to local governments. This region was chosen because it has many properties essential for developing team modeling techniques and is close to Oak Ridge, thus making it convenient for field research. The district is within the TVA region, thus TVA data are available for a historical time period not available for many regions. It was felt that inclusion of a metropolitan center offers a greater stimulus to the interaction processes which help an interdisciplinary team work most effectively.

A primary goal was to develop a methodology that could be applied to, but would not be highly specific or unique to this one region. For this reason the end product of the initial effort is not intended to be a working

---

[5] King Charles County Model, Harvard Business School, (1970).

Fig. 11



Note: Gray is the watershed boundary; black is the boundary of the TVA region.

model that could be used for implementing decisions at the regional or local level. Instead, we are aiming for a product that will serve as an educational tool for model builders, a model with which local planners and decision makers can begin to interact. We have worked with the East Tennessee Development District staff to gain insight into the needs of local planning agencies and governing bodies and for a critical evaluation of our work. It is hoped that this association will keep us in touch with real world problems. This has proven most beneficial and enlightening. We have also made ties with TVA for the same reasons, as well as for a unique source of data. TVA has a population and employment model of their region and has gone through a similar process of model construction from which we have been able to learn a great deal. (Data for the ETDD is now being inserted into the TVA model in a cooperative venture.) We have also held working sessions with state agencies, planning organizations, economic development offices, etc., again to maintain real world contacts.

The 8,500-square-mile Knoxville metropolitan region (ETDD) is being modeled at two different scales, an overall look at the entire 16-county region and a more detailed look at a single county. Data for the 16-county region have been collected on a grid system of one square mile, in a fashion similar to the Campbell County project described previously. It was also decided to take a closer look at Campbell County since we already have some understanding of that area. The new data are being collected on a 4-hectare (~10 acre) grid which is compatible (a ratio of 1:64) with the scale used for the 16-county region and is metric-based to be compatible with the IBP modeling work as well as with the newly standardized procedures of NASA's remote sensing data.

By summer 1971 we expect to have operational a "point model" of the socio-economic sector of the ETDD area. This model will forecast population (by 8 age categories, sex, and race); employment, unemployment and job openings (by approximately 25 industrial groupings); local government revenues and expenditures; family income; and the level of a limited number of pollutants (industrial and domestic wastes). We will expand the detail and scope of the model to include breakdowns of the labor force, job openings by skill level, greater detail on private expenditures, etc.

We have already located, evaluated, and acquired most of the data (going back generally for 20 years) necessary to implement the limited model briefly described above. We are continuing to acquire the remaining data while manipulating the data we presently possess and starting to program the model. The population submodel is being programmed while the employment submodel is about to be started. The remaining submodels, roughly in the order in which they will be programmed are: county finance, family income, and pollution.

The next step in the development of the socio-economic section of the model is to spatially distribute these activities into data for each of the 16 counties. The procedure being used is similar to that of the original Campbell County model, i.e., an unperturbed growth model. An important exception is that the data base will be more elaborate in terms of both numbers of variables and degree of interaction among them. Several conceptual models and submodels have been started and we will continue to develop these as time permits. Most of these submodels use the same data base and can be easily implemented. Briefly, this work would include such things as the refinement of intrinsic land use suitability models, extensive development of hydrologic models for river basin management which reflects response of stream flow to alternative land uses, and spatial simulation of housing and market demand submodels.

Finally, we will investigate the response of the regional system to hypothetical or proposed changes in public policy to evaluate the effects of such political decisions on the region's growth and environmental quality.

3.3 Analysis of Social Variables in Regional Studies

Recognizing that man both influences his environment to some degree and also is affected by his physical, chemical, and biological environment, two basic paths of preliminary work on these feedback relationships have been undertaken.

First, where man affects his environment, research has begun on the secondary effects on the environment of governmental and general public decisions. Both of these have powerful impacts on land use, effluent control, and demands for goods and services. In addition, consumer surveys and attitudinal analyses have been undertaken in the ETDD area to assess the environmentally damaging products and the degree of public support for reform measures.

Second, where environmental conditions affect man, some examination of the psychological impacts of varying degrees of population density and the psychological impacts of various occupational conditions in the ETDD Region has been undertaken. Impact data were assembled primarily by extrapolating from existing research in both the biological and social sciences. Further incorporation of such data into the simulation model will require a great deal of additional research. The long-term objective is to provide a means for assessing the effects on the human population of alternative courses of environmental planning or management.

4. FUTURE PROGRAM

Stated in the broadest terms, the ultimate goal of the Regional Modeling team is to develop a simulation model of a physical, biological, political, social, and economic system which will predict the future effects of possible changes. More specifically, we propose that our long-term goal is to provide a model of the southeastern U.S. along with a "zoom" capability so that detailed evaluations may be made of very specific alternatives in specific regions.

The first step along the path leading to the above goals is to construct a model of the 16-county East Tennessee Development District. Initially, many factors will be treated in a crude fashion, being refined later to provide greater detail, thus allowing more realistic simulation, or greater generality. As this proceeds, it is clearly necessary to guard against over-emphasis of modeling the internal processes in the District, to the point where factors arising exogenous to the District are not sufficiently taken into account. The obvious solution is to provide more detail and realism in these exogenous factors. This is best accomplished by a less sophisticated model of the larger region.

As an initial effort to provide data on the exogenous factors, we propose to begin gathering certain data on the southeastern United States, such as economic, transportation, and demographic--this will be an analysis of the setting, not initially a modeling program. To provide this input we will link closely to other interested organizations in the southeastern regions. In addition to providing information vital to understanding the ETDD in its proper context, it is a necessary step in working towards the "zoom" capability of focusing on a comparable region anywhere in the Southeast.

SMALL TOWN DEVELOPMENT AND POPULATION REDISTRIBUTION

by

Patricia B. Guseman
Texas A&M University

and

Edward L. McLean
Clemson University

INTRODUCTION

It has been recognized by most Americans today that some degree of control over both the natural and the man made environments is necessary. Two major trends have influenced this conclusion. The population has increased each year, with 3,000,000 annually crowding into the cities. Every national census has shown the progressive decline of the rural population and the greater density of the cities. Nevertheless, a second and newer trend is also evidenced. Rural suburbs and reestablished small towns are growing rapidly (McKain, 1963). Whereas lack of adequate transportation to the more dominant metropolitan areas once thwarted the growth of these hinterlands, this is no longer the case. Looking at these two trends, it is observed that the central city can no longer be analyzed apart from the hinterlands it influences.

While planning that is regional in nature is a fairly well accepted idea, there has been an emphasis on obtaining jobs and a "better life" by moving to highly urbanized areas rather than remaining in smaller towns. However, the most persistent problems of a region can be found in its central cities. There are three complex issues that appear to represent the largest problematic situations in central cities.

Since the origination of large urban areas, a universal problem has been congestion. Lewis Mumford (1938, 1945 and 1968) has eloquently written about this problem for several decades. A second problem is associated with the increasing migration of blacks to highly urbanized areas, where there is found an increasing segregation of this group from the economic and cultural mainstream of the society. Moynihan (1967) has analyzed this problem, concluding that acculturation of blacks and whites should be facilitated, so that segregation will no longer be an issue. A third problematic situation in the central city is that of poverty. Herbert Gans (1968) has asserted that few problems in highly urbanized areas cannot be traced back to poverty.

There have been numerous plans to solve the increasing urban problems. The five proposals most frequently mentioned are discussed briefly below. Perhaps the most nouveau and glamorous plan is the "new town" concept, which involves the construction of a totally new town. In Britain and other European countries this has been accomplished by governmental edicts with some success. In the United States, where private developers have been responsible for the project, there has been only limited success. The largest American new town, Columbia, Maryland, has many problems, a major one being that its residents are all middle and upper-middle class. Only suburbanites could afford the move to the new town. Also, there were no existing economic, political, or social bases, making it very difficult to stabilize all facets of town institutionalization at once, while managing a huge influx of people at the same time. Few new town projects have been profitable in the United States, which is a most critical outcome.

A second and most commonly adopted program has been urban renewal. However, slum clearance that only scatters poverty, as well as neighborhoods and cultural units, without helping to rebuild for these groups, is not believed to be advantageous (see, for example, Marris, 1963). The benefits are selective, in that certain economic activities can be located within the central area of a city.

The first two proposals are directed primarily toward the physical environment of urban and metropolitan areas. A third proposal is concerned essentially with the social environment and specifically with problems related to poverty. This proposal is based upon the assumption that poverty in urban and metropolitan areas is initially transferred from rural areas. Migrants from rural to urban areas have little education, poor quality education, and lack vocational training skills that are essential for survival in metropolitan central cities. Poverty, consequently, continues to become a more serious problem. Programs to stop this poverty cycle would have to be directed toward rural areas -- social and economic development to provide education, training, and employment opportunities in rural areas and small towns.

A fourth suggestion for solving urban problems, and one which summarizes the beliefs of many Americans, is the "laisse-faire" approach summarized by Andrews (1967:285). The reasoning here is that the central city, the larger ones in particular, have traditionally been nationalistic and racial melting pots. Their function, consequently, is a "holding area" for minorities. Here are found homes and apartments that most ethnic and racial minorities can afford. Their friends and neighbors are established there. Such a proposal can be categorized as the "let well enough alone" or "status quo" approach.

A fifth and not so well publicized proposal was furnished in 1967 by the former Secretary of Agriculture, Orville Freeman, who suggested that the federal government encourage metropolitan-to-small town migration in order to relieve congestion and other central city problems. The poor would thus move back to the hinterlands. This plan has not been utilized in the United States except in an unintended manner, that is, when a large corporation moves its quarters from a metropolitan area to a smaller city, or when a government installation is located in a previously unsettled area.

Such programs have been implemented in other countries, however, and have achieved a large degree of success. One example of this plan which has been documented is the development of Basingstroke, England, a small city located between two large metropolises. In 1952, England's Town Development Act made provision for the expansion of small towns which were beyond the sprawl of London. It was found (Broady, 1967) that those who moved from London to Basingstroke had been anxious about London's crowded conditions and about the traffic problem. Other inconveniences were also noted, such as polluted air, problems of inadequate housing, and poor health conditions generally. This English town appears to be succeeding and others have followed its example. Thus, the plan for developing small towns seems to be one workable solution for helping solve urban problems and for aiding regions as a whole.

PURPOSE OF PAPER

The prime purpose of this paper is to discuss and interpret the implications of the fifth proposal -- an in-migration to smaller towns from central city areas -- in order to foresee what problems might be involved should such a plan be utilized in the United States. With such information, planning and implementation could take place in order to alleviate some of these problems at the outset instead of trying to remedy the problematic situations after they have come to pass. Of the aspects of the plan, the social milieu associated with small towns will receive greatest attention in this paper.

A second purpose of the paper revolves around the largest problem evidenced in the study of Basingstroke, England's development. While the plan worked well in that community, hostility of the existing population was often observed toward the newcomers. Thus, the second purpose of the paper is to examine the hypothesis that selected small towns in the United States would be receptive to newcomers (assuming that cultural inbreeding and "likemindedness" are not universal).

FRAME OF REFERENCE

Although Broady's Basingstroke study provided insights into the idea of small town expansion, no known study has been undertaken related specifically to Orville Freeman's particular proposal. Nevertheless, concerning the second purpose of the paper, that is, topics related to social and cultural receptiveness of small towns, contradictory literature can be observed. On the one hand, many contemporary social scientists have suggested that "differences in attitudes and behavior among various segments of American society are diminishing -- that a process of 'massification' is eliminating regional and community differences" (Preston, 1968:350). They have proposed that, basically, a localized culture does not seem to exist. Dewey (1960) has questioned the current use of a rural-urban continuum as being relevant in present-day America.

In opposition to this position, Kolb and Brunner (1952:213) have suggested that the social pattern of rural people is more than a locality relationship, because "the currents of life and thought" of those who live within the community constantly flow together. Key (1961:116) has hypothesized that the intimate relations of the small town may induce a greater homogeneity of opinion than metropolitan centers, a condition which is perhaps enforced by a norm-setting community leadership.

Finally, McLean (1966) after synthesizing case studies of small towns in Iowa, concluded that basic dimensions and properties of communities vary considerably. Case studies were conducted in communities which were subsequently empirically labeled as provincial geriocracies and others as ethnic subcultures. Only half of the 16 communities studied portrayed dimensions and properties indicative of cosmopolitan characteristics.

METHODOLOGY

Several basic criteria were utilized in selecting: (1) the specifications to Freeman's proposal; (2) the research site; and (3) the sample to be interviewed. Concerning the specifications of planned expansion it was first decided that central city residents should be encouraged to migrate since it is in this sector of the city where problematic conditions are often at their worst. If all urbanites were encouraged to migrate, the same problems would occur that was evidenced in the "new towns;" that is, the middle and upper class groups are the most equipped to migrate. Secondly, the number of those migrating should not exceed the number of existing residents in the town, in order to maintain the prevailing institutional spheres (another failing of "new towns"). Third, the federal government or a large private development corporation should instigate, and probably subsidize, the move because of the need for substantial development in a relatively short length of time.

A small, north central Texas community, given the pseudonym of Cottontown, was chosen as the study area in order to analyze the proposal of small town expansion. The criteria utilized in selecting this research site are as follows. First, it has been found (Weiss and Kaiser, 1967) that a town in close proximity to a large metropolitan area, with easy accessibility routes, can best incur development and growth. Also, a community that is nonmetropolitan, yet which is larger than others surrounding it, retains a good possibility of social and economic development (Tarver and Beale, 1968). Finally if the town is a county seat, it has more of a potential for growth (Mayo, 1947).

Cottontown was chosen because it most fully met the basic criteria listed above, for instance, it is a county seat and approximately 15,000 people live in the town. Limited acess freeways connect Cottontown to two metropolitan areas, with downtown Dallas being only thirty minutes away and easy accessibility to Fort Worth in forty minutes. These metropolises have large, dense central cities whose residents could be potential migrants. They are also dominant centers of collection and distribution, as well as of banking and recreation, thus providing the broad economic and social bases for the region as a whole.

The third set of criteria were those relating to the selection of the sample to be interviewed. Key's (1961) methodological proposition that certain "knowledgeables" in a community are presumably more conversant in relating attitudes toward various issues was utilized in selecting the sample. Thus, a random sample of residents was not chosen, but rather one representative group that was thought to be highly informed as to the attitudes held by various sectors of the community. The universe selected consisted of the clergymen in Cottontown who were asked their congregations' attitudes, as well as their own opinions, regarding present conditions in the community and, furthermore, those situations which might occur if a town expansion plan were implemented. According to Key (1961), ministers have been found to exhibit attitudes toward various issues, whereas many "men-on-the-street" are apathetic. Clergymen are considered to be a select group of "knowledgeables" and appropriate for case study data sources (Vidich and Bensman, 1960).

Thus, fifteen ministers of Cottontown who were willing to cooperate with the study were interviewed using a case study approach. The interview guide consisted of a preliminary statement explaining the proposal of small town expansion. This was followed by an open-ended interview relating to "conception of present community" and "conception of the effects of community expansion" (see Appendix).

PRESENTATION OF FINDINGS

As has been mentioned earlier, the primary focus of this paper revolves around the social ramifications for the community involved in small town reestablishment. However, other situational conditions of the community such as the economic and political characteristics, are briefly reviewed. At the outset it must be stated that the findings which evolved from the fifteen interviews have been kept at a very general level, because of the small size of the sample and the verstehen method of interpretation, as well as because only one community was examined.

Two unexpected findings are noted, but which limit interpretation of the results. First, all the respondents either assumed that the hypothesized migrants would be black, or asked for clarification regarding the racial composition of the metropolitan central cities. Thus, rather than perceiving the potential newcomers as "poor" (whether they be black, white, Chicano or Puerto Rican), the respondents perceived the potential newcomers as predominately "black."

Second, two communities were found to exist in Cottontown - one black and one white - with little meaningful interaction between the two groups. Both black and white clergyment spoke of "our side" or of "our community" in many of the attitudinal questions, referring to their own racial sector of town and not the community as a whole. Cottontown had been one of Texas' earliest towns and a leading cotton center. Since its origin Negroes have been strictly segregated in one section of the city, thus, the apparent reason for the dual perception of "community." With respect to questions such as tolerance, progressiveness and "like-mindedness,"[1] responses were based on one part of the community rather than the community as a whole.

Briefly observing the general character of the community, eleven ministers perceived Cottontown as being progressive economically while the other four ministers saw it as developing economically in only a few areas. The majority (ten) felt that, politically, the town was ruled by a few elites. The clergymen were divided concerning the standing of the community in relation to education, occupations and employment, and recreation.

The ministers were then questioned about these same community characteristics, should Cottontown be exposed to small town development and in-migration of central city poor. Over half the ministers agreed that such a plan would prove an economic advantage to the community. It was asserted, however, that such a proposal would be detrimental to existing social and institutional structures. Concerning recreation and leisure it was suggested by black ministers only that the plan would be beneficial (these respondents assumed that a large porportion of the proposed newcomers would be black). However, all ministers perceived educational disadvantages, such as the need to build more schools, to further integration, and to raise the tax base.

Because social issues had been found to be the crux of Basingstroke,

---

[1] See Appendix, questions I, B (6) and II, B (6) for a further appreciation of the problems posed by the varying conceptions of "community."

England's biggest problem in town expansion, these issues were analyzed in detail in Cottontown. In Basingstroke, old residents had often evidenced hostility to the heterogeneous grouping of newcomers who in-migrated. Thus, discussion concerning the "like-mindedness" and tolerance of present residents in Cottontown was pursued.

When questioning clergymen about their community, fourteen stated that the townspeople were "like-minded" and fourteen felt that this statement held true for their own congregations also. While nine of the fifteen clergymen felt that their congregations were not tolerant, all but four stated that the community was not tolerant of other groups who were different than they were.[2] The respondents were divided as to whether their congregations were flexible and progressive; however, the majority stated that the town was neither socially flexible nor socially progressive. Nevertheless, the majority of respondents saw both the townspeople and their own parishioners as being basically conservative.[3]

When questioned about the social ramifications of town expansion under the proposed plan, many clergymen pointed out both socially advantageous and detrimental aspects of the plan for their town. First, slightly over half asserted that the "like-mindedness" of present residents would continue, while others felt the in-migration would change the "inbreeding" now existing in the community. Only two respondents suggested that there would be tolerance among the existing residents to the newcomers and, again, these two were black ministers who were considering only "their community". In addition, less than half of the clergymen felt that a flexible and progressive atmosphere would prevail when the newcomers moved into the community, for they perceived that a conservative stance toward the new situation would dominate.

The respondents who discussed which of the community characteristics mentioned in the interview outline they thought would be most affected by implementation of the plan suggested universally that the educational system would be the most disrupted. Furthermore, they perceived their congregations as being most opposed to the plan because of the problems presented to the school system. Basis for the apprehension about the impact upon the educational institution related back to a recent issue in Cottontown when the Department of Health, Education and Welfare school desegregation order had been received.[4]

---

[2] In addition, two ministers who stated that the community was tolerant were black clergymen who meant "their" community.

[3] The seemingly critical stance of the ministers concerning social attributes of the town and of their own congregations is not surprising in lieu of the fact that ministers tend to be more innovating than their parishioners (Scanzoni, 1965; Key, 1967). One of the major reasons they are more progressive (especially in the South) is that clergymen are associated with and owe primary loyalities to a national code of ethics - a code which may not necessarily cater to localized values. Nevertheless, ministers perceived their congregation as being more socially flexible than they viewed the community as a whole.

CONCLUSION

Two general findings were predominant in this case study of a small town close to the center of a metropolitan region. The respondents (clergymen) tended to think of potential migrants to their community as blacks rather than as whites, Chicanos, or Puerto Ricans. Second, two communities were found to exist in Cottontown - one black and one white - with little meaningful interaction between the two.

Specific implications of the above findings will also be discussed. While Cottontown is well-suited geographically, economically, and transportation-wise for a town expansion scheme, another problematic area is evidenced which would hinder implementation of the plan. The ministers perceived that such a plan would receive intense resistance, not so much because of economic and physical changes, but because of the social changes that would be incurred. There was a preoccupation with the question of race, in that strongest resistance to the in-migration appeared to be in the fact that many of the potential in-migrants to Cottontown could hypothetically be black.

A second factor which is related to the first, but one that has special implications, is that all major programs for low-income groups in the past had some type of "outside" sponsorship, as recent events had testified with the HEW school integration order for Cottontown. Thus, the townspeople, it was felt, would not be anxious to be involved with federally-sponsored projects, if this were to be the case.

Finally, the extent to which "in-migration of the poor" (or other characteristics of in-migrants causing them to be different from existing residents) influences the attitudes of the townspeople may depend to a large degree on the economic benefits involved in an in-migration. Nevertheless, the hypothesis that small towns are without cultural-inbreeding or a "like-mindedness" and would be as accepting of newcomers as are large urban areas, is not acceptable in the case of Cottontown, Texas.

---

[4] It should be noted that this research was conducted in 1969, one year prior to the mandatory unitary school system order of 1970.

These conclusions have significant ramifications for urbanization planning, especially in plotting the most effective course for dealing with the interdependent problems of central cities and metropolitan regions. That the unique problems in Southern communities have often been neglected in sociological conceptualizations is also brought to the fore in this short study. These generalizations lend additional support for planning that is regional in nature, and which also takes into consideration the particular characteristics of each rural, urban and metropolitan area involved. All of these implications will have a significant impact on the types of communities in which Americans will be living in the near future.

A final paradox associated with these findings is that the respondents (clergymen) did not think of the potential metropolitan to small town migrants as having previously migrated from the small town to the metropolitan central city. The rural to urban poverty cycle outlined previously in this paper apparently is not a part of small town residents' cognitive frame of reference. Education in a general sense, that is, the development of information systems is consequently a critical element in seeking answers associated with poverty questions as well as the complex of problems confronting our metropolitan central cities.

REFERENCES

Andrews, Richard B.
1967 Urban Growth and Development. New York: Simmons-Boardman Publishing Co.

Broady, Maurice R.
1967 "The social aspects of town development." Pp. 929-953 in H. Wentworth Eldredge (ed.) Taming the Megalopolis. Garden City, New York: Doubleday and Co.

Dewey, Richard
1960 "The rural-urban continuum: real but relatively unimportant." American Journal of Sociology 66 (July), 60-66.

Gans, Herbert
1968 People and Plans, New York: Basic Books, Inc.

Key, V. O., Jr.
1961 Public Opinion and American Democracy. New York: Alfred A. Knopf.

Kolb, John H. and Edmund de S. Brunner
1952 A study of rural society. Cambridge: Houghton Mifflin Co.

Marris, Peter
1963 "A report on the condition of urban renewal in the United States." Pp. 113-123 in Leonard J. Duhl (ed.) The Urban Condition: People and Policy in the Metropolis. New York: Basic Books, Inc.

Mayo, Selz C.
1947 "Two population characteristics of county seat towns in North Carolina." Rural Sociology 12 (December), 423-426.

McKain, Walter C., Jr.
1963 "Rural suburbs and their people." Journal of Cooperative Extension 1 (Summer), 76-84.

McLean, Edward L.
1966 "Sixteen communities: report number one." Case Study of 16 Iowa communities. Unpublished Report, Department of Sociology and Anthropology, Iowa State University, Ames.

Moynihan, Daniel P.
1967 "The urban negro is the 'urban problem'." Transaction 4 (October), 36-39.

Mumford, Lewis
1945 City Development. New York: Harcourt, Brace and Co.

Mumford, Lewis
1938 The Culture of Cities. New York: Harcourt, Brace and Co.

Mumford, Lewis
1968 The Urban Prospect. New York: Harcourt, Brace and Co.

Preston, James D.
1968 "Community norms and adolescent drinking behavior." Social Science Quarterly 49 (September), 350-359.

Scanzoni, John
1965 "Innovation and constancy in the church - sect typology." American Journal of Sociology 71 (November), 320-327.

Tarver, James D., and Calvin L. Beale
1968 "Population trends of southern metropolitan towns, 1950 to 1960." Rural Sociology 33 (March), 19-29.

Vidich, Arthur J., and Joseph Bensman
1960 Small Town in Mass Society. Garden City, New York: Doubleday and Co.

Weiss, Shirley, and Edward J. Kaiser
1967 "Patterns of urban development in a regional cluster of cities." Research Previews 14 (March), 29-33.

APPENDIX

INTERVIEW OUTLINE

I. Conception of Present Community
  A. Has your community grown population-wise over the past 10 years?

  B. How, then, do you think the community stands at the present time?

    (1) Economically

    (2) Politically

    (3) Educationally

    (4) Concerning recreation and leisure

    (5) Occupation-wise

    (6) Socially
      (a) Are there common values in the town, i.e a "like-mindedness"?

      (b) What would some of these values be?

      (c) Are the people tolerant of other groups who are different than they are?

      (d) Are they flexible?

      (e) Are they conservative?

      (f) Are they progressive?

      (g) What social classes are represented?

  C. How would you rate your congregation concerning these social characteristics?
    (1) Like-mindedness

    (2) Tolerance

    (3) Flexibility

    (4) Conservative-ness

    (5) Progressive-ness

    (6) Social class representation

II. Conception of Effects of Changes

A. If a migration of 3,000 to 5,000 families (which would be about the equivalent of your present population) were to occur in the near future, what changes might accompany this move?

(1) Economically

(2) Politically

(3) Educationally

(4) Concerning recreation and leisure

(5) Occupation-wise

(6) Socially

(a) Would there be common values in the town, i.e. a like-mindedness?

(b) Would there be tolerance among the old residents and the newcomers?

(c) Would there be flexibility evidenced?

(d) Would there be conservative-ness?

(e) Would there be progressive-ness?

(f) What social classes might be represented?

B. Which of these changes would be the best and which would be the worst? (Numbers one through six above)

C. How would your congregation feel, that is, which of these might seem bad to them and what others might seem good? (Numbers one through six above)

III. Personal Information

A. How long have you lived in Cottontown?

B. What is your occupation?